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ICONES PLANTARUM;

OR

FIGURES,

WITH

BRIEF DESCRIPTIVE CHARACTERS AND REMARKS

OF

NEW OR RARE PLANTS,

SELECTED FROM THE AUTHOR'S HERBARIUM.

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TAB. CCCI.

Weinmannia biglandulosa.

Foliis simplicibus elliptico-lanceolatis obtusis grosse obtuse serratis in petiolum brevem articulatis ad articulum minute biglandulosis, pedunculis axillaribus solitariis unifloris petiolum subæquantibus bibracteatis, antheris longe acuminatis.

Weinmannia biglandulosa. *All. Cunn. Mst. in Herb. Nostr.*

Hab. Van Dieman's Land, where it is called "*Native Beech;*" *All. Cunningham, Esq.* Particularly abundant on the banks of the Emu River, in the Hampshire hills. *Ronald Gunn, Esq. Mr Lawrence.*

Mr Cunningham observes that this shrub, or tree, grows to the "height of 30 or 35 feet." Mr Gunn's remarks are, "It is most abundant about Emu River, forming almost impenetrable *scrubs* (as we call thickets in Van Dieman's Land). The stems are flexuose, bending in and out in all directions with one another; and, being pretty tough, our friends James Backhouse and Dr Milligan called the plants '*right and left scrub;*' as they had to work to the right and left to get out of them. The stems, which lie in all directions, are from 8 to 18 feet long, or thereabouts, but seldom exceeding 8 feet in perpendicular height. Of course situation affects it a good deal. Soil, rich alluvial."—I have hesitated whether or not there were characters sufficient to constitute a genus of this plant:—but, except the 2-seeded cells (if that number be constant) of the capsule, the much acuminated anthers, the very narrow petals, the broad and flat hypogynous disk, and the very different inflorescence, it seems sufficiently to accord with the simple-leaved *Weinmanniæ.*

Fig. 1. Flower and bracts. *f.* 2. Flower laid open. *f.* 3. Petal. *f.* 4. Stamen. *f.* 5. Anther. *f.* 6. Pistil. *f.* 7. Ovary laid open:—*magnified.*

1
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TAB. CCCII.

Xanthosia dissecta. *J. D. Hook.*

Pusilla prostrata glabriuscula, foliis longe petiolatis tripartitis laciniis dissectis, umbellis pedunculatis axillaribus terminalibusque, sepalis ovatis acuminatis, petalis lanceolatis longe acuminatis inflexis, fructu late cordato, mericarpiis jugis 5 elevatis, secundariis similibus.

Hab. Circular Head and Rocky Cape, Van Dieman's Land. *R. Gunn, Esq.* (*n.* 880).

A small, much branched, slender, wiry annual. Stem short, branching from the base, and there very leafy. Leaves small, tripartite, and much cut and divided. Umbels small, 2-5-flowered. Involucre of 2-3 leaves. Calyx-lobes or sepals erect. Petals narrow, entire, reddish. Styles curved. Stylopodium large and conspicuous. Fruit broadly cordate, compressed.

The habit of this is very different from any described *Xanthosia;* and should perhaps, with one or two others in Herb. Hook., form a separate section of the Genus. The carpels exactly resemble those of the sections *Leucolæna* and *Euxanthosia. J. D. H.*

Fig. 1. Flower. *f.* 2. The same more expanded. *f.* 3. Petal. *f.* 4, 5. Fruits. *f.* 6. Vertical section of a mericarp. *f.* 7. Transverse section :—*magnified.*

2
3

TAB. CCCIII.

Hydrocotyle cordifolia. *J. D. Hook.*

Subacaulis, foliis longe petiolatis cordatis glabris marginibus obscure sinuatis apice rotundatis, umbellis subbifloris longe pedunculatis, floribus majusculis, involucris diphyllis, calycis laciniis ovatis acutis, fructibus pilosis.

Hab. Common in marshy places on sandy soils, Van Dieman's Land. *R. Gunn, Esq.* (*n.* 876).

Radix e fibris paucis crassiusculis. *Folia* pleraque radicalia longe petiolata, cordata, obtusa, glabra, basi profunde biloba. *Petiolus* subhirsutus, purpurascens. *Pedunculi* longitudine petiolorum, nunc elongati, proliferi et foliosi: foliis parvis purpurascentibus. *Involucrum* diphyllum, foliolis concavis. *Umbella* subbiflora, floribus majusculis. *Ovarium* cordatum, pilosum. *Calyx* e laciniis deciduis vel foliolis 5 majusculis, ovatis, acutis vel acuminatis, erectis. *Petala* ovato-lanceolata, erecta, apice acuta, inflexa. *Petala* calyce longiora. *Fructus* lato-cordatus compressus, superne hirsutus. *J. D. H.*

Fig. 1. Flower. *f.* 2. Fruit. *f.* 3. Transverse section of the same :—*magnified.*

3
4
2
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TAB. CCCIV.

Didiscus humilis. *J. D. Hook.*

Acaulis, foliis longe petiolatis cordato-ovatis 3-5-lobis basi cuneatis, subtus petiolis scapisque (folia superantibus demum prostratis) patenti-pilosis, umbellis simplicibus, petalis obovatis patentibus, fructibus biscutatis subrugosis disco depresso marginato.

Hab. Moist open plains on the Hampshire hills, Van Dieman's Land. *R. Gunn, Esq.* (*n.* 245.)

Radix fusiformis. *Folia* omnia radicalia, numerosa, longe petiolata. *Scapi* folio duplo longiores, demum fructiferi, decumbentes. *Umbella* simplex, multiflora, floribus parvis. *Involucrum* polyphyllum: foliolis lineari-angustis, umbellam æquantibus. *Pedicelli* flore longiores. *Dentes calycinæ* obsoletæ. *Petala* majuscula, patentia. *Fructus* compressus, biscutatus, rugosus.

The very old scapes are always seen to be bent down in a very remarkable manner, as if they had lain prostrate on the ground: the umbel of fruit curving upwards at its apex. *J. D. H.*

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Unripe fruit. *f.* 4. Ripe fruit:—*magnified.*

1
2
3
4
5

TAB. CCCV.

Petroselinum prostratum.

Caule procumbente flexuoso, foliis pinnatisectis segmentis petiolulatis pinnatifidis laciniis 5 lanceolatis ultimis apice trifidis, umbellis subsessilibus oppositifoliis, involucro submonophyllo. *DC.*

Petroselinum prostratum. *De Cand. Prodr.* 4. *p.* 102.

Apium prostratum. *Labill. Nov. Holl. p.* 76. *t.* 103.

β. foliorum segmentis angustioribus. Apium prostratum. *Vent. Malm. t.* 81. (Tab. nostr. CCCV.)

Hab. Sands and marshes near salt or brackish water, Van Dieman's Land. *R. Gunn, Esq.* (*n.* 386, 68). Port Arthur. *Mr Backhouse.*

There are two appearances of this plant, which at first sight are strikingly different:—the one is that figured by Labillardière, with broad segments to the leaves; the other, that represented by Ventenat and by us, with narrow segments. Both kinds are sent by Mr Gunn; and they seem to be not uncommon in various parts of the island where there are salt or brackish soils.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Immature fruit. *f.* 4. Ripe fruit. *f.* 5. Section of a carpel, showing the jugæ and the position of the vittæ:—*magnified.*

1
2
3
4
5
6

TAB. CCCVI.

Meionectes Brownii. *J. D. Hook.*

Meionectes Brownii.

Hab. Van Dieman's Land, near Circular Head, in wet places. *Mr R. Gunn*, (*n.* 883.)

Herba inconspicua, aquatica, glaberrima. *Caules* debiles, ramosi, basi radicantes, spithamei, tenues. *Folia* alterna, pectinata, v. laciniata, subteretia; inferiora capillaceo-multifida, glaberrima, crassiuscula, opaca, lurido-virescentia, segmentis acutis, 1-nerviis; juniora minus dissecta. *Pedunculi* axillares, solitarii, $\frac{1}{2}$ lin. longi, basi bibracteolati. *Flores* minimi, inconspicui, $\frac{3}{4}$ lin. longi, penduli. *Calycis tubus* urceolatus, ovarium includens, eoque adhærens, compressus, bisulcatus, limbo bipartito, laciniis oppositis late ovatis obtusis trinerviis. *Petala* 2, obovata, cymbiformia, ad apicem valde rotundata, dentibus calycis longiora, opposita, æqualia, enervia. *Stamina* 4, 2 petalis opposita, 2 iis alterna, filamentis brevibus. *Antheræ* oblongæ, subquadratæ, biloculares, flavæ, longitudinaliter dehiscentes. *Styli* 2, breves, conico-subulati, basi coaliti, hirtelli. *Ovarium* ovatum, compressum, bisulcatum, biloculare, 2-ovulatum. *Ovula* pendula. *Fructus* nucumentaceus, 2-3 lin. longus, ovatus, compressus, rugulosus, cum dentibus persistentibus calycis coronatus, 2-locularis, 2-spermus. *Semina* alba, oblongo-elliptica. *Embryo* rectus, centralis, in albumine carnoso.

A most distinct and remarkable genus of Mr Brown, who mentions it in the botanical appendix to Flinders' voyage, as containing only half the number of parts to the flower that the other genera of *Haloragеæ* possess. Whether this be the species on which he founded the genus or not, I am unable to say. The ripe seed-vessels are large in proportion to the size of the flower, which is very diminutive, and hangs down from the axils of the leaves. *J. D. H.*

Fig. 1. Flowers. *f.* 2. The same, with the petals removed. *f.* 3. Young ovary. *f.* 4. Ripe fruit. *f.* 5. The same cut transversely; and *f.* 6, cut longitudinally :—*magnified.*

2
4
3
1

TAB. CCCVII.

Didiscus pilosus.

Foliis inferioribus longe-petiolatis palmatisectis segmentis cuneatis incisis dentatisque petiolisque piloso-hispidis, caulinis paucis parvis, pedunculis elongatis ramisque glabris. *Hugel.*

Didiscus pilosus. *Hugel, Enum. Pl. Nov. Holl. p.* 54, (*in note.*)

Hab. Dry sandstone hills north of Bathurst. *All. Cunningham, Esq.* Circular Head, Van Dieman's Land. *R. Gunn, Esq.* (*n.* 825.)

Mr Gunn finds this plant growing in poor sandy land between Circular Head and Woolnorth, but none of it east from Circular Head to Emu Bay. It is $1\frac{1}{2}$ to 2 feet high. Root fusiform. Petioles hairy and the leaves also, but on the latter the hairs are deciduous. Segments of the cauline leaves linear. Involucre of several narrow, linear leaves. Petals large, obovate, entire. Filaments of the stamens long. Fruit scabrous, of 2 orbicular mericarps, exhibiting no evident jugæ except that one which borders an elevated disk on each side the commissure. *J. D. H.*

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Fruit. *f.* 4. Transverse section of the fruit:—*magnified.*

1
2
3
4
5
6
7

TAB. CCCVIII.

Leptospermum rupestre. *J. D. Hook.*

Ramosum prostratum humile, foliis parvis obovatis ellipticisve brevissime petiolatis apice obtusis punctatis nitidis glaberrimis obscure 1-nerviis, floribus subsessilibus, calycibus hemisphæricis sub lente puberulis, limbo glabro deciduo colorato.

Hab. Rocks on the summit of Mount Wellington and other mountains in Van Dieman's Land, at an elevation of 3000 feet above the level of the sea. *Mr Lawrence. Fraser. R. Gunn, Esq.* (*n.* 295.) New Zealand. *Fraser in Herb. Hook.*

A small, prostrate, much branched shrub. Branches 2-3 feet long, spreading, their apices downy. Leaves numerous, alternate, coriaceous, obovate-elliptical, scarcely petiolate, 4-6 lines long, entire, smooth, of a yellowish or brownish-green colour. Flowers numerous, solitary in the axils of the leaves, on very short peduncles. Calyces turbinate, the tube, in the buds, especially downy, the teeth broad, spreading, obtuse, membranaceous, deciduous, red in the centre, with brown, diaphanous margins. Petals whitish. Stamens numerous. Fruit of 5 cells, surrounded by the semi-superior calyx, from the tube of which the epidermis readily peels off. *J. D. H.*

Fig. 1. Flower. *f.* 2. Germen. *f.* 3. Do. cut open. *f.* 4. Ripe fruit. *f.* 5. The same cut open longitudinally. *f.* 6 and 7. Seeds:—*magnified.*

3
2
5
1

TAB. CCCIX.

Bæckea micrantha. *J. D. Hook.*

Foliis obovato-triquetris obtusis quadrifariam imbricatis grosse punctatis glabris, floribus axillaribus solitariis subsessilibus.
α. erecta, major. B. micrantha. *De Cand. Prodr. v.* 3. *p.* 230.
β. humilis, procumbens.

Hab. The mountainous region about May-day Plain and the Black Bluff and Vale of Belvoir, Van Dieman's Land. *R. Gunn, Esq.* (*n.* 306; α.—*n.* 815; β.) *Mr Lawrence.*

A much branched shrub, growing in mountainous regions, erect and 3 to 7 feet high in α.; humble and prostrate in β. Branches covered with the scars of the old foliage. Leaves closely imbricated, blunt, channelled above, rounded and keeled beneath, patent, crowded, glabrous, shortly petiolated, shining, with several large round glands or dots on each face, 2-3 lines long, dark green, often tipped with red. Peduncles straight, much shorter than the leaf. Flowers small. Calyx turbinate, smooth, the limb of 5 teeth, coloured and blunt at the point. Stamens 10, short, incurved, glabrous. Fruit shortly peduncu-lated, of a light brown colour, somewhat elongated, smooth, crowned by the five persistent teeth of the calyx. *J. D. H.*

Fig. 1. Leaves. *f.* 2, 3. Flowers. *f.* 4. Petal. *f.* 5. Ripe fruit:—*magnified.*

1
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TAB. CCCX.

Tillæa macrantha. *J. D. Hook.*

Caulibus di-trichotomis, foliis oblongo-cylindraceis acutis, floribus terminalibus tetrameris, sepalis petala superantibus ciliatis glandulis linearibus nigris obsitis.

Hab. Van Dieman's Land. *R. Gunn, Esq.*

A small annual plant growing in tufts, probably in moist places. Stems much branched in a di- or trichotomous manner, scarcely more than 2 inches high. Leaves opposite, oblongo-cylindrical, acute, fleshy. Flowers terminal, solitary, on the ultimate branches or peduncles. Calyx of 4, nearly erect, elliptical-oblong, concave, acute, ciliated sepals, streaked, both within and without, with numerous black linear glands or short lines. Petals 4, ovate, slightly combined at their base, shorter than the calyx. Stamens 4, alternating with the petals. Ovaries 4, alternating with the stamens. Fruit of 4, erect, or slightly spreading, oval-cylindrical follicles, with a short style and obtuse stigma. Seeds oblongo-reniform, dotted. *J. D. H.*

Fig. 1. Flower. *f.* 2. The same spread open. *f.* 3. Petals and stamen. *f.* 4. Follicles. *f.* 5. Single follicle. *f.* 6. Seed: —*magnified.*

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TAB. CCCXI.

Goniocarpus vernicosus. *J. D. Hook.*

Nanus minute pubescenti-scaber, foliis oppositis ovatis marginatis integerrimis superne vernicosis, floribus solitariis axillaribus sessilibus basi bibracteatis, petalis cymbiformibus acuminatis extus hirsutis.

Hab. This was selected from other Van Dieman's Land plants with which it was found mixed.

Allied to *Goniocarpus serpyllifolius*, (J. D. Hook. in *Ic. Pl. t.* 210); but a much smaller plant, more compact, with crowded and perfectly entire leaves, quite glossy and as if varnished on the upper-side (whence the specific name). The flowers also are similar, but the stigmas are much less feathery, and the stamens are small, (abortive ?)

Fig. 1. Leaf and flower. *f.* 2. Flower expanded. *f.* 3. Petal. *f.* 4. Stamen. *f.* 5. Stigma. *f.* 6. Leaf and bracteas:—*magnified.*

TAB. CCCXII.

HYDROCOTYLE TRIPARTITA.

Pilosula, foliis palmatisectis, segmentis 3 cuneatis inciso-dentatis lateralibus sæpe bifidis, pedunculis petiolo multo brevioribus (nunc longioribus), umbella subcapitata 6-10-flora, fructibus orbiculato-didymis utrinque bicostatis. *DC.*

H. tripartita. *Brown in Rich. Hydr. n.* 46. *f.* 25. *Sieb. Exsicc. n.* 628. *De Cand. Prodr. v.* 4. *p.* 65.

Van Dieman's Land. *Mr Gunn.* (*n.* 547.)

Mr Gunn's specimens are smaller and less hairy than those figured in Richard's Monograph, but they vary in size. The two lateral ridges on the carpels are united into one; between them and the commissure there is, on each side, a small deep sunken pit or hollow, which gives to a transverse section of a carpel a remarkably contracted appearance towards the commissure. This curious feature is not represented in Richard's work; the specimens there described, probably, not exhibiting perfectly ripe fruit. *J. D. H.*

Fig. 1. Flower. *f.* 2. Ripe fruit. *f.* 3. The same cut through transversely :—*magnified.*

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TAB. CCCXIII.

SCAPHYGLOTTIS ROSEA.

Pseudobulbis elongato-cylindraceis sulcatis proliferis, foliis linearibus obtusis, floribus geminatis, labello obovato-spathulato apice recurvo trilobo lobo medio acuminato.

HAB. Demerara. *C. S. Parker, Esq.*

This is certainly very near the *S. violacea* of Dr Lindley (*Bot. Reg. t.* 1901,) a plant of the same country; but as that has also been sent us, as well as the present, in a living state, I have no hesitation in pronouncing them distinct. The flowers of this are of a much paler hue, the sepals and petals of an uniform rose colour: but the chief characteristic lies in the labellum, which is here attenuated below into a long narrow claw, while the upper half is curved down, the apex 3-lobed, the middle coming to a rather sharp point.

The habit of this genus is peculiar in its proliferous pseudobulbs: but the structure of the flower seems to me scarcely different from that of *Maxillaria*.

Fig. 1. Flower. *f.* 2. Column and lip. *f.* 3. Lip:—*magnified.*

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TAB. CCCXIV.

EPIDENDRUM RIGIDUM. *Jacq.*

Caule erecto ancipiti-compresso, foliis distichis lineari-oblongis coriaceis obtusis, spicæ rachi ancipiti, sepalis ovatis coriaceis, petalis oblongis membranaceis, labelli postici cordato-ovati obtusi concavi palato calloso cuniculo inflato, columna apice dentato-laciniata, bracteis foliaceis dolabriformibus carinatis ovarii longitudine.

Epidendrum. *Jacq. Amer. p.* 222. *t.* 134. *Sw. Fl. Ind. Oc.* 3. *p.* 1507. *Lindl. Gen. et Sp. Orchid. p.* 110.

β. labello subrotundo. *Lind. l. c.* (an species distincta?)

HAB. West Indian islands. Our specimen here figured is from St Vincent. *Rev. L. Guilding.*—β. Mexico. (*Lindley.*)

A frequent inhabitant of Jamaica and other of the West Indian islands, and sometimes cultivated in our stoves, though possessing little beauty to recommend it.

Fig. 1. Flower. *f.* 2. Portion of do. *f.* 3. Column, from which the anther is removed. *f.* 4. Anther-case. *f.* 5. Pollen-masses :—*magnified.*

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TAB. CCCXV.

Maxillaria nana.

Humilis, caule folioso, foliis lineari-lanceolatis subfalcatis rigidis, floribus solitariis axillaribus (ochroleucis), columna superne antice bialata, labello oblongo trilobo lobo medio obtusissimo cum acuminulo, disco glandula aurantiaca.

Hab. Demerara. *C. S. Parker, Esq.*

A small species of *Maxillaria* with somewhat of a proliferous habit, and hence approaching *Scaphyglottis:* at the setting on of the leaves and of the flowers also, there are copious membranaceous, sheathing scales. The sepals and petals are erect, cream-coloured. The column is prolonged below the apex of the germen, so as with the base of the labellum to form an obtuse spur. Pollen-masses 4, unequal, attached to a large, 2-toothed, membranous gland.

Fig. 1. Flower. *f.* 2. Column and lip. *f.* 3. Pollen-masses. *f.* 4. Back view of the masses removed from the gland :—*magnified.*

TAB. CCCXVI.

Acacia setigera.

Glabra, ramis acute trigonis, phyllodiis fasciculatis ternis linearibus uninerviis integerrimis apice setigeris, spicis axillaribus phyllodia superantibus, petalis 4 reflexis.

Hab. New Holland? (*C. S. Parker, Esq.*)

From the greenhouse of my friend Mr Parker, who is ignorant of its native country. It is a small shrub, remarkable for its triangular branches, and the ternate, narrow, one-nerved, setigerous phyllodia and the copious racemes of bright yellow flowers that spring from the axils of the superior leaves.

Fig. 1. Portion of a branch with leaves. *f.* 2. Single flower: —*magnified.*

TAB. CCCXVII.

SCAPHYGLOTTIS? FASCICULATA.

Pseudo-bulbis fasciculatis lanceolatis sulcatis monophyllis, folio lineari retuso costato avenio, pedunculo solitario brevi unifloro ad basin folii bracteato, bracteis numerosis imbricatis, perianthio patente, sepalis ovatis concavis, petalis angustioribus oblongis, columna brevi, labello oblongo obsoletissime trilobo recurvo.

HAB. Demerara. *C. S. Parker, Esq.*

Of the Genus of this plant I am extremely doubtful. It was received in a living state, but the anther had fallen away, and no pollen-masses were to be found.

Fig. 1. Flower, side view. *f.* 2. Front view of do. (the anther having fallen away). *f.* 3. Column and labellum :—*magnified.*

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TAB. CCCXVIII.

Helipterum incanum.

Incano-tomentosum, caule herbaceo adscendente aut erecto simplici apice aphyllo, foliis linearibus integerrimis subacutis uninerviis, superioribus distantibus multo minoribus, capitulo terminali nudo, involucri subcampanulati squamis longis stipitatis ad apicem stipitis lanato-ciliatis productis in laminam lanceolatam, achæniis glabris. *De Cand.*

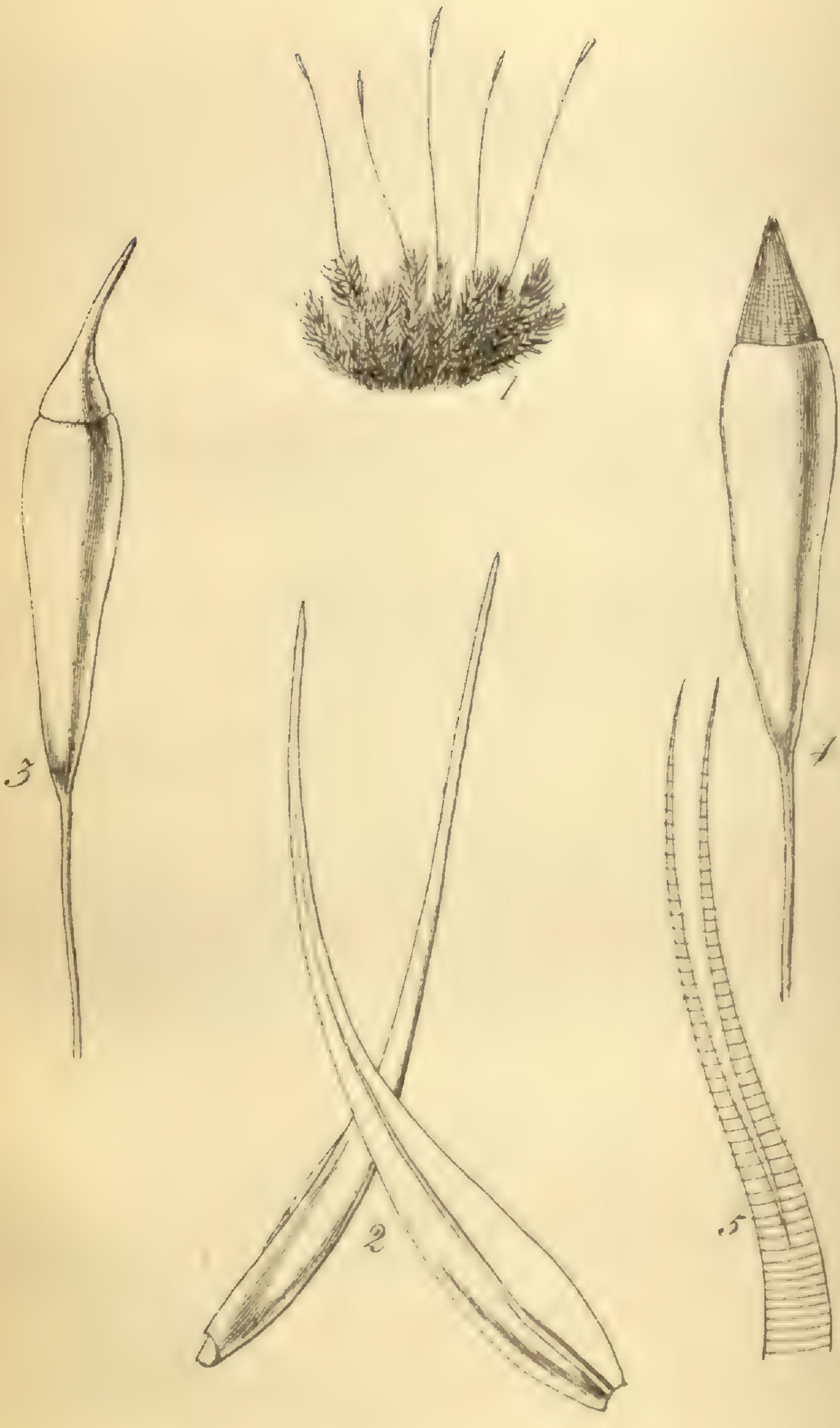
Helipterum incanum. *De Cand. Prodr. v.* 6. *p.* 215.

Helichrysum incanum. *Hook. Bot. Mag. t.* 2881.

Hab. Interior of N. Holland. *All. Cunningham, Esq.* Frequent in Van Dieman's Land. *R. Gunn, Esq.* (Nos. 108, 124, 239, 442, 837.) *Mr Lawrence,* (*n.* 217).

According to our views of this species it is extremely variable, and passes into the *H. bicolorum* of Allan Cunningham and De Candolle. The stems are from 6 inches to a foot and more high: the leaves more or less narrow and more or less dense, silky or hoary, or even almost woolly; the scales of the involucre are sometimes white, occasionally tinged with brown or purple. The Genus *Helipterum* of De Candolle only differs from *Helichrysum*, in the plumose, not scabrous pappus.

Fig. 1. Inner scale of the involucre. *f.* 2. Floret. *f.* 3. Hair of the pappus:—*magnified.*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TAB. CCCXIX.

Dicranum macrodon.

Cæspitosum, caulibus erectis brevibus subramosis, foliis undique insertis erecto-patentibus subulatis paululum falcatis integerrimis, nervo mediocri infra apicem evanescente, seta elongata, capsula erecta angusto-pyriformi, operculo e lata basi subulato obliquo, peristomii dentibus elongatis profunde bipartitis in conum approximatis.

Hab. Pillzhum, Province of Cuença, S. America? *Prof. W. Jameson ?*

An apology is certainly necessary for giving so very imperfect an account of this species of a Genus requiring more than an ordinary degree of care in its investigation. The fact is, the drawing was made by Dr J. D. Hooker, and the plate prepared previous to his departure on the scientific voyage in the southern hemisphere under Capt. James Ross: but the specimen and original drawing, and the notes made by him, have been mislaid, and the above is all the information we can venture to give. Our impression is that the species is one of Dr Jameson's from Pillzhum. We trust at some future time to make up for our present deficiency of knowledge relative to this Moss.

Fig. 1. Tuft: *nat. size.* *f.* 2. Leaves. *f.* 3. Capsule, with operculum. *f.* 4. Capsule, showing the peristome. *f.* 5. Single tooth of the peristome:—*magnified.*

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TAB. CCCXX.

HELICHRYSUM GUNNIANUM.

Caule erecto vel subdecumbente ramoso gracili arachnoideo-tomentoso, foliis acutissimis pubescentibus subtus incano-tomentosis, inferioribus subspathulatis superioribus sensim minoribus linearibus, ramis monocephalis flavis, involucri hemisphærici squamis obovatis uninerviis denticulatis obsolete venosis, stipitibus lanatis ad apicem longe barbatis.

HAB. Van Dieman's Land. *Mr R. Gunn.* (*n.* 502.)

A most extensive Genus, even now that *Helipterum*, DC. is excluded, and one whose species we can hardly hope to define satisfactorily without the assistance of figures. With regard to the Genus of the present plant, it is hard to say whether the hairs of the pappus should come under the denomination of scabrous or plumose, which is the only distinction between the two genera just mentioned.

Fig. 1. Scale of the involucre. *f.* 2. Floret. *f.* 3. Hair from the pappus;—*magnified.*

TAB. CCCXXI.

POLYPODIUM PILIGERUM.

Fronde brevi-stipitata parce pilosa lato-lanceolata bipinnatifida, laciniis obscure costatis primariis anguste lanceolatis secundariis ovato-oblongis integerrimis obtusis, soris solitariis globosis ad basin laciniarum.

HAB. Pillzhum, Province of Cuença. S. Am. *Prof. W. Jameson.*

Caudex horizontalis, brevis, squamosus, squamis densis, imbricatis, nigro-fuscescentibus, nitidis. *Stipites* vix unciam longi, graciles, filiformes. *Frons* digitalis ad spithamæam, circumscriptione lato-lanceolata, profundissime pinnatifida, subrigide membranacea, pilis sparsis patentibus, præcipue ad marginem et costam, obsita; laciniis primariis unciam sesquiunciam longis patentibus, anguste lanceolatis, pinnatifidis, segmentis ovato-oblongis, modice patentibus, integerrimis, obtusis. *Sori* solitarii, globosi, ad basin segmentorum seu laciniarum segmentorum.

Fig. 1. Portion of the frond seen from above. *f.* 2. Portion of the same seen from beneath, with sori :—*magnified.*

TAB. CCCXXII.

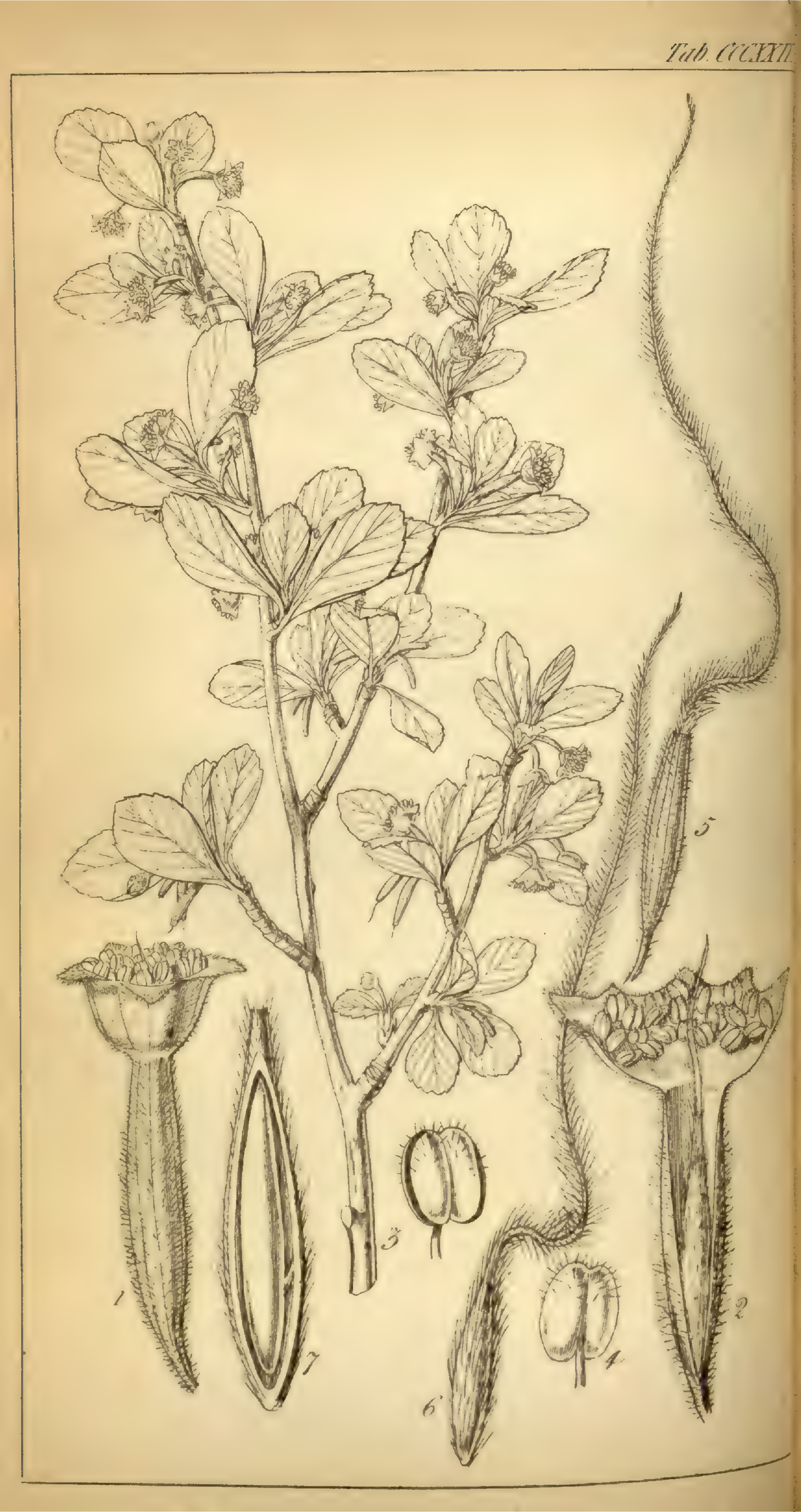
Cercocarpus betulæfolius. *Nutt.*

Foliis rhombeo-obovatis dentatis supra glabris subtus (junioribus etiam) ad nervos solummodo adpresse pubescentibus, floribus solitariis erectis v. inclinatis.

Cercocarpus betulæfolius. *Nutt. Mst. in Herb. nostr.*

Hab. Santa Barbara, Upper California. *Mr Nuttall.*

The accompanying figure is taken from Mr Nuttall's specimen in my Herbarium, and exhibits all the characters I am acquainted with of this species. The fruit is quite unknown to me.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TAB. CCCXXIII.

Cercocarpus parvifolius. *Nutt.*

Foliis late obovatis dentatis subtus (junioribus præcipue) pubescenti-hirsutis, floribus geminatis recurvis.

Cercocarpus parvifolius. *Nutt. in Herb. nostr.—Torr. et Gr. Fl. N. Am. ined.—Hook. et Arn. Bot. of Beech. Voy. Suppl. p.* 337.

Hab. California. *Douglas.* Platte river of the same country. *Nuttall.*

Fig. 1. Flower. *f.* 2. Calyx laid open, to show the stamens and pistil. *f.* 3, 4. Anthers. *f.* 5. Fruit with the calyx-tube (the limb being deciduous). *f.* 6. Fruit, from which the calyx-tube is removed. *f.* 7. Fruit laid open, showing the seed:—*magnified.*

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TAB. CCCXXIV.

CERCOCARPUS LEDIFOLIUS. *Nutt.*

Ramulis villosissimis, foliis oblongo-lanceolatis marginibus revolutis utrinque subtus præcipue dense pubescenti-tomentosis, floribus aggregatis erectis, staminibus exsertis.

Cercocarpus ledifolius. *Nutt. mst. in Herb. nostr.*

HAB. Bear River of the Rocky Mountains, California. *Mr Nuttall.*

Frutex, ut videtur, parvus; ramis tortuosis, crassiusculis, vetustis cicatricatis glabris, junioribus foliosis, lanato-villosissimis. *Folia* fasciculata, coriacea, lato-lanceolata, seu oblongo-lanceolata, utrinque sed subtus præcipue fuscescenti-tomentosa, brevissime petiolata. *Flores* fasciculati, ad apices ramulorum congesti. *Calyx* dense pubescens. *Stamina* sub-20, exserta; *filamenta* quam in aliis speciebus longiora. *Fructus* cauda elongata, sericeo-villosissima instructus.

This very distinct species of *Cercocarpus* has only hitherto been found by Mr Nuttall, on the Bear River, one of the numerous tributaries of the Rio Sacramento which falls into the Pacific Ocean at San Francisco.

Fig. 1. Flowering, and *f.* 2. fruiting specimen: *nat. size.* *f.* 3. Flower. *f.* 4. Stamen. *f.* 5. Fruit. *f.* 6. Leaf:—*magnified.*

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TAB. CCCXXV.

ACTINOLEPIS MULTICAULIS. *DC.*

GEN. CHAR. Actinolepis. *DC.*—*Capitulum* pluriflorum, fl. radii 3-5-ligulatis fœmineis, disci tubulatis 5-dentatis bisexualibus, stylo abortivo masculis? *Invol.* ovato-oblongum bracteis foliaceis paucis cinctum, squamis paucis obtusis adpressis dorso molliter tomentosis. *Recept.* angustum nudum. *Ligulæ* latæ breves 2-3-dentatæ, stylo bifido exserto. *Tubuli* tubo tereti, fauce dilatata, antheris albis, stylo simplici apice capitellato aut subnullo? *Achænia* oblonga subangulata, radii pubentia pappo squamellis circ. 5 scariosis acuminatis constante superata, disci glabra calva.—Herba *annua tenella multicaulis Californica.* Caules *tenues apice subaraneosi.* Folia *opposita parva late obovata, basi cuneata et integra, apice obtusissima 5-dentata.* Capitula *in axillis supremis approximatis solitaria subcongesta parva.* Flores *flavi.*—An *Heleniea* ex pappo radii squamellato? An *Partheniea* si discus vere masculus? *DC.*

Actinolepis *multicaulis. De Cand. Prodr. v. 5. p.* 656. *Hook. et Arn. Bot. of Beech. Voy. p.* 353.

HAB. California. *Douglas.*

By some strange error the stems are stated in Decandolle to be about " 2" inches in length.

Fig. 1. Capitulum and floral leaf. *f.* 2. Central floret. *f.* 3. Radial floret and scale of the involucre. *f.* 4. Achenium of the ray. *f.* 5. Scale from the pappus:—*magnified.*

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TAB. CCCXXVI.

Madaraglossa heterotricha. *DC.*

Pilis sparsis brevibus remotis aliis pubiformibus aliis glandula nigra terminatis subscabrida, caule ramoso, foliis lineari-oblongis obtusis integris aut vix subserratis, ligulis apice trifidis involucro duplo fere longioribus. *DC. Prodr. v.* 5. *p.* 694.

Layia heterotricha. *Hook. et Arn. Bot. of Beech. Voy. Suppl. p.* 358.

Hab. California. *Douglas.*

Plant 1-2 feet high. Flowers large. The inner scales of the involucre embrace the base of the radial floret with two wings in the lower half which lap over the ovary.

Fig. 1. Outer floret of the disk with its accompanying scale. *f.* 2. Floret of the ray with its scales of the involucre. *f.* 3. Achenium of the ray. *f.* 4. Hairs of the pappus:—*magnified.*

TAB. CCCXXVII.

Peperomia Galeottiana.

Acaulis humilis, foliis longe petiolatis ovato-acuminatis glaberrimis trinerviis, petiolo gracili, scapis petiolum æquantibus, spicis elongatis gracilibus folia superantibus.

Hab. Xalapa, Mexico. *Galeotti.*

An elegant and graceful little *Peperomia* with its leaves all radical, thin and membranaceous, 3-nerved, the lateral nerves slightly branched.

TAB. CCCXXVIII.

Anona? bibracteata.

Foliis ovato-ellipticis subcoriaceis utrinque acutis nervis subtus pubescentibus, pedunculis unifloris folio vel ramo oppositis inferne bibracteatis, bracteis ovatis membranaceis foliaceis inæqualibus, sepalis ovatis petalisque (6) æqualibus lato-lanceolatis pubescentibus.

Hab. Xalapa, Mexico. *Galeotti.*

I have seen nothing of the fruit of this plant, nor yet a flower in an entirely fit state for examination, so that I am unable to decide satisfactorily even on its Genus. It is remarkable for the large, unequal, leafy bracteas situated towards the base of the peduncle; which peduncle, as well as the floral coverings, is clothed with short down.

TAB. CCCXXIX. CCCXXX.

Berberis (Mahonia) fraxinifolia.

Inermis, foliis pinnatis foliolis 7-9 ovato-lanceolatis basi acutis coriaceo-membranaceis subsessilibus integerrimis utrinque reticulatis, racemis versus apicem ramorum folium æquantibus pendulis, pedicellis gracillimis flore triplo quadruplo longioribus ebracteolatis.

Hab. Xalapa, Mexico. *Galeotti.*

This is a shrub, or probably a small-sized tree, with large, pinnated leaves, quite destitute of spines or serratures, and with leaflets not inaptly resembling those of the common Ash. The racemes too are peculiarly long and slender, and the pedicels about an inch in length. The fruit I have not seen.

Fig. 1. Petal and Stamen. *f.* 2. Pistil:—*magnified.*

Galeottianæ. N. O. Ternstrœmiaceæ.

TAB. CCCXXXI.

Saurauja barbigera.

Ramulis petiolis pedunculisque ferrugineis-pubescenti-setosis, foliis obovato-lanceolatis acuminatis basi attenuatis mucronato-serratis utrinque (sub lente) punctato-scabris subtus ad axillas nervorum dense barbato-lanatis, calycibus glabriusculis.

Hab. Xalapa, Mexico. *Galeotti.*

Frutex, ramis vetustioribus glabris. *Folia* tactu et sub lente punctis minutis elevatis scabrida. *Panicula* sublonge pedunculata, corymbosa. *Calycis sepala* subrotunda, ciliata, dorso glabriuscula. *Stamina* numerosa, ad basin petalorum, subpolyadelpha. *Filamenta* basi paululum latiora, hirsuta. *Antheræ* lineares, versatiles, loculis superne poro dehiscentes. *Ovarium* globosum, 5-loculare, loculis ad angulos interiores pluriovulatis. *Styli* 5, subtorti.

Fig. 1. Flower. *f.* 2. Stamens and petal. *f.* 3. Calyx and pistil. *f.* 4. Section of the ovary. *f.* 5. Portion of the underside of a leaf. *f.* 6. Stamen :—*more or less magnified.*

TAB. CCCXXXII.

Peperomia lancifolia.

Caulescens suberecta, foliis lato-lanceolatis acuminatis pinnatim nervosis basi in petiolum attenuatis, pedunculo versus apicem ramorum folio duplo breviore, spicis geminatis elongatis gracilibus.

Hab. Xalapa, Mexico. *Galeotti.*

I have in vain endeavoured to find any description which will correspond with this plant, of which the solitary specimen in my possession has the spikes geminate; but I am unable to say if that character be constant.

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TAB. CCCXXXIII.

Garrya Fadyenii.

Dioica, foliis ellipticis brevissime apiculatis, spicis masculis ramosis pendulis, fœmineis simplicibus erectis, bracteis flores superantibus, masc. sepalis apice cohærentibus, fœm. stylis brevibus crassis ovario adpressis.

Hab. Woods upon the Blue Mountains, Jamaica. *Dr M'Fadyen.*

The very remarkable *Genus* to which this plant belongs, was established by Dr Lindley in 1834, on a new plant of North California, found by Mr Douglas, but discovered many years previously by Mr Menzies in his voyage with Capt. Vancouver, and existing in several Herbaria to which he liberally presented it. It was, therefore, a matter of great astonishment to me, to find the same Genus in a plant of Jamaica, to which Dr M'Fadyen directed my attention about four years ago, and which is here represented. Mexico, however, which may be reckoned an intermediate country, is now known, by the exertions of Mr Hartweg, to produce three other species, which are described by Mr Bentham in his excellent "*Plantæ Hartwegianæ.*" Mr Skinner has lately sent me a species, in fruit only, from Guatemala: but this will probably prove to be identical with one or other of Hartweg's.

Our plant turns very black in drying. The connate bracteas are longer than the flowers and somewhat leafy. The segments of the male perianths are connate with their apices. The pistils are obovate. Ovules 2, pendent from the top of the cells. Styles thick, acuminate, close pressed to the top of the germen. Berry black, glabrous. Perfect seed 1. Embryo small, placed obliquely towards the upper extremity of a hard, fleshy albumen.

Fig. 1. Male spike: *nat. size.* *f.* 2. Portion of the same. *f.* 3. Single flower. *f.* 4. The same, with the perianth forced open. *f.* 5. Female spike. *f.* 6. Pistil. *f.* 7. The same laid open. *f.* 8. Berry. *f.* 9. The same laid open. *f.* 10. Seed cut through vertically. *f.* 11. Embryo:—*magnified.*

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TAB. CCCXXXIV.

HARTMANNIA? PUNGENS, *Hook. et Arn.*

Herbacea basi sublignosa confertim foliosa, caule parce ramoso pilis albidis setoso, foliis inferioribus pinnatifidis, lobis oblongis v. oblongo-lanceolatis spinoso-mucronatis, superioribus ac fasciculorum axillarium linearibus integris rigidis spinescentibus margine recurvis papilloso-pilosis, capitulis subsolitariis bracteatis, involucri squamis spinescentibus glandulosis ligulas radii bifidas subæquantibus, achæniis epapposis, radii gibbis areola terminali valde obliqua, receptaculo toto paleaceo, paleis lanceolato-subulatis spinescentibus. *Hook. et Arn. Bot. of Beech. Voy. Suppl. p.* 357.

HAB. California. *Douglas.*

Fig. 1. Scale of the involucre, and radial floret. *f.* 2. Side view of a radial floret. *f.* 3. Back view of do. *f.* 4. Scale of the involucre. *f.* 5. Palea and central floret. *f.* 6. Central floret :—*magnified*.

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TAB. CCCXXXV.

Cotula myriophylloides. *Harv.*

Aquatica repens glabra, ramis erectis, foliis oppositis coadunatis fere ad basin capillaceo-multifidis, capitulis globosis, involucri foliolis 4 ovatis æqualibus simplici serie, radii flosculis fœmineis apetalis achæniis stipitatis alatis, disci flosculis hermaphroditis corolla tubulosa 4-fida achæniis subsessilibus apteris.

Hab. Watery places, near Cape Town. *Hon. W. H. Harvey.*

A very distinct and remarkable species of *Cotula*, for a knowledge of which, as well as for the drawing here given, we are indebted to our very acute friend, the Hon. W. H. Harvey. The leaves are extremely curious, and the florets still more so. Those in the circumference of the capitulum are female, upon a distinct, fleshy, cellular stipes, destitute of corolla, and with the germen and achenium winged, 2-toothed, sometimes unequally so, at the top. Central florets nearly sessile, perfect: the achenium wingless: the corolla is rather infundibuliform, being enlarged upwards, and 4-toothed.

Fig. 1. Capitulum. *f.* 2, 3. Florets of the circumference. *f.* 4. Fruit of the same. *f.* 5. Floret of the disk or centre. *f.* 6. Stigmas. *f.* 7. Achenium of the disk. *f.* 8. Leaves:—*magnified.*

TAB. CCCXXXVI.

Cytinus dioicus. *Juss.*

Dioicus pauciflorus, perianthio campanulato muriculato 6-lobo, limbo erecto, ovario 6-costato.

Cytinus dioicus. *Juss. in Ann. du Mus. v.* 12. *p.* 443.

Phelypæa sanguinea. *Thunb. Fl. Cap. p.* 2.

Hypolepis sanguinea. *Pers.—Spreng. Syst. Veg. v.* 1. *p.* 19. *Harv. Gen. S. Afr. Plants. p.* 300.

Hab. Parasitical on the roots of *Eriocephalus racemosus*, on the sides of the Table Mountain, facing Camps Bay, at an elevation of about 2000 feet. *Hon. W. H. Harvey.*

Whole plant of a clear blood-red colour. Except in the truly diœcious habit, 6-parted perianth, and erect limb, this species offers no character by which it can be generically separated from *Cytinus;* and as these appear, in the absence of other characters, to be of merely specific value, I fully agree with Jussieu and Endlicher in uniting it with that Genus. *W. H. H.*

Tab. CCCXXXVI. Male and young plants, *natural size*, showing their position on the woody portion of the root of *Eriocephalus*. *Fig.* 1. Male perianth cut open. *f.* 2. Staminal column. *f.* 3. Female perianth. *f.* 4. Sepal. *f.* 5. Style and stigma, the lobes of the perianth being removed. *f.* 6. Transverse section of ovary:—all but *f.* 1 and 3 *magnified.*

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TAB. CCCXXXVII.

Anadenia Manglesii. *Grah.*

Foliis cuneiformibus triplinerviis venosis utrinque glabris et subconcoloribus trifidis lobis cuneiformibus, lateralibus trifidis intermedio 3-5-fido segmentis mucronatis. *Grah.*

Hab. New Holland. Introduced to our gardens by *Mr Lowe.* (*Graham.*)

An erect, quite glabrous shrub; with harsh, rigid leaves, and racemes that are terminal or axillary, many-flowered. Flowers small, in pairs. Perianth tetraphyllous, at first opening only between the claws, cohering by the capitate apex (as at *f.* 1.), afterwards opening entirely. Pistil stipitate; stipes white, curved. Ovary gibbous, yellow, bearing 3 ovules. Style conical, more swollen on one side, white. Stigma conical, pink-coloured. *Graham.*

Fig. 1. Appearance of a flower on first opening. *f.* 2. Flower, fully expanded. *f.* 3. Pistil :—*magnified.*

TAB. CCCXXXVIII.

ŒNOTHERA (HOLOSTIGMA) GRACILIFLORA. *Hook. et Arn.*

Acaulis pilosa, foliis anguste lineari-spathulatis integerrimis v. apice denticulatis, floribus sessilibus, calycis tubo elongato filiformi folia subæquante, petalis lato-obcordatis. *Hook. et Arn. in Bot. of Beech. Voy. Suppl. p.* 341.

HAB. California. *Douglas.*

A very decidedly marked species of an extensive genus. Root annual, long, tapering, slender. Leaves all radical, 2-4 inches in length, hoary with longish soft hairs. From the top of the somewhat fusiform ovary, arises the very long slender tube of the downy calyx, which brings the corolla nearly on a level with the apex of the leaves. The petals are yellow, green when dry.

Fig. 1. Flower:—*magnified.*

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TAB. CCCXXXIX.

Œnothera (Holostigma) alyssoides. *Hook. et Arn.*

Humilis multicaulis puberula, foliis inferioribus multo majoribus oblongo-lanceolatis inæqualiter dentatis in petiolum attenuatis caule paullo brevioribus, superioribus linearibus, racemis foliosis secundis circinnatis, ovariis tenuissimis sessilibus, petalis filamenta æquantibus stylo brevioribus, capsulis contortuplicatis striatis torulosis. *Hook. et Arn. Bot. of Beech. Voy. Suppl. p.* 341.

Hab. Pine Creek, Snake Country; California. *Tolmie.*

One of the most remarkable of the *Holostigma* group of *Œnothera.* It has a slender, perpendicular, branching root, from the summit of which arise several short ascending stems, from 3 to 5 inches long, the central one, however, is erect, and always apparently floriferous from the base to the summit, the capsule at the base being almost mature, while the upper portion is only in flower. Lower leaves almost equal in length to the stems, and sometimes nearly an inch broad, while the upper ones become bracteas and are shorter than the flowers. Corolla pale yellow, retaining their colour when dry, as in *Œ. dentata,* (Cav.); they are copious, racemose, and secund, the upper portion of the raceme being recurved or circinnate until the flowers expand. Petals roundish, not at all notched. The whole habit of the plant is indeed very similar to that of some *Alyssum* or *Vesicaria.*

Fig. 1. Flower and bractea. *f.* 2. Fruit:—*magnified.*

TAB. CCCXL.

Fabiana imbricata.

Ramis virgatis, foliis undique imbricatis cylindraceis punctatis basi productis, floribus terminalibus solitariis in ramulis brevibus subsessilibus.

Fabiana imbricata. *Ruiz et Pav. Fl. Peruv. v.* 2. *p.* 12. *t.* 122. *Lindl. Bot. Reg. t.* 59.

Hab. Chili. *Ruiz et Pavon.* Andes of Chili. *Mr Cruickshanks. Mr Cuming* (*n.* 140). *Dr Gillies.* Coast of South Chili. *Dr Eights.*

Our drawing was taken from a living specimen, raised in the Edinburgh Botanic Garden, from seeds gathered by Mr Cuming: and since our plate was finished it has appeared in the Botanical Register. Although even the coloured figure makes but little show on paper, in consequence of the pure white of the flowers, yet the number and gracefulness of these among the copious dark green foliage of the numerous branches, have a very pretty effect. The inflorescence on a short peduncle. Calyx nearly globose, shortly and bluntly 5-lobed. Corolla funnel-shaped. Limb plaited, of 5 rounded, spreading lobes. Ovary with a large red fleshy scale, or hypogynous gland on each side. Ovary 2-celled, many-seeded. Fruit 2-valved. Receptacles of the fruit eventually separating from the valves and cohering at the top.

Fig. 1. Flower. *f.* 2. The same laid open. *f.* 3. Transverse section of the hypogynous glands and ovary. *f.* 4. Capsule. *f.* 5. Receptacle of the seeds removed from the capsule:—*magnified.*

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TAB. CCCXLI. CCCXLII.

Saurauja pedunculata.

Dioica? ramis petiolis pedunculisque nudiusculis, foliis late obovato-oblongis acutis basi obtusis v. acutis serratis utrinque lævibus, calycibus dense pubescentibus.

Hab. Xalapa, Mexico. *Galeotti.*

A much larger plant than our *S. barbigera*, figured at *tab.* 331, with leaves broader, a span long, very indistinctly serrated, with longer, more glabrous peduncles, and very downy calyces. The flowers which I examined appeared to be all male, having a small abortive pistil, and very short erect styles.

Fig. 1, 2. Flowers. *f.* 3. Petal and stamens. *f.* 4. Single stamen. *f.* 5. Calyx and abortive pistil. *f.* 6. Pistil from the same. *f.* 7. Section of do.:—*magnified.*

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TAB. CCCXLIII.

Monolopia minor. *DC.*

Gen. Char. *Capitulum* multiflorum heterogamum, fl. radii fœmineis ligulatis interdum subbilabiatis, disci tubulosis hermaphroditis sterilibus aut masculis, tubo tenui hispidulo, fauce dilatata. *Invol.* squamæ 8-10 uniseriales ad medium concretæ. *Recept.* convexum aut subconicum epaleaceum. *Antheræ* ecaudatæ. *Styli* radii rami cono brevi superati. *Achænia* calva glabra, radii compressa aut subtrigona, disci compressa. —Herbæ *Californicæ annuæ erectæ albo-tomentosæ.* Folia *alterna oblongo-linearia integra aut parce dentata aut lobulata.* Capitula *ad apicem caulis aut ramorum terminalia ebracteata.* Flores *lutei.*—Genus accedit ex invol. ad *Gamolepidem*, disco sterili ad *Steirodiscum. De Cand.*

M. *minor;* foliis linearibus, lobulis paucis hic inde instructis, radicalibus glabratis, cæteris albo-tomentosis, ligulis involucro paulo longioribus. *De Cand. Prodr. v.* 6. *p.* 74. *Hook. et Arn. in Bot. of Beech. Voy. Suppl. p.* 359.

Hab. California. *Douglas.*

A Californian Genus of two species, the present and that figured in the following plate. In this, when the involucre comes to be accurately examined, it will be seen that the scales of the involucre are not in one series, neither are they so much united as in *M. major.*

Fig. 1. Involucre. *f.* 2. Radial floret. *f.* 3. Floret from the disk:—*magnified.*

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TAB. CCCXLIV.

Monolopia major. *DC.*

Foliis ligulatis obtusis vix subdentatis, ligulis involucro triplo longioribus.

Monolopia major. *De Cand. Prodr. v.* 6. *p.* 74. *Hook. et Arn. Bot. of Beech. Voy. Suppl. p.* 359.

Hab. California. *Douglas.*

This should be considered the type of the Genus *Monolopia;* of which the character was given in our last page. The involucre is here truly formed of one series of leaflets, and there are some other peculiarities which I do not perceive in *M. minor.* The florets of the ray are furnished with a curious toothed scale, as shown at *f.* 5, and the teeth of the florets of the disk are beset externally with spreading jointed hairs. (See *f.* 2, 3.)

Fig. 1. Receptacle. *f.* 2. Floret of the disk. *f.* 3. Hair from the teeth of the corolla. *f.* 4. Floret from the ray. *f.* 5. Portion of the same, to show the scale at the top of the tube. *f.* 6. Achenium. *f.* 7. Section of the same:—*magnified.*

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TAB. CCCXLV.

Vaccinium Forbesii.

Foliis sempervirentibus late ovatis subobovatisve subcoriaceis obtusiusculis superne præcipue serratis subtus reticulatis, racemis axillaribus, pedicellis 2-3-bracteatis bracteis ovatis membranaceis, dentibus calycinis acutis, corollæ campanulatæ 5-fidæ lobis ovatis, filamentis hirsutis, antheris linearibus muticis, stylo exserto.

Hab. Mozambique. *Forbes.*

Few Genera of plants are more universally dispersed than this, from Alpine heights on mountains to the lowest plains, from the tropics almost to arctic regions, and in both hemispheres. The plant here figured is an inhabitant of the eastern coast of Africa, in lat. 15° south. Other species are indigenous to the neighbouring island of Madagascar.

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Pistil :—*magnified.*

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TAB. CCCXLVI.

Euphorbia sphærorhiza. *Benth.*

Glabra, radice tuberosa sphærica, caule herbaceo erecto dichotomo, foliis linearibus integerrimis utrinque angustatis, involucris solitariis breviter pedicellatis, laciniis interioribus brevissimis fimbriatis, glandulis truncatis dorso in appendiculas ovatas fimbriatas coloratas productis. *Benth.*

Euphorbia sphærorhiza. *Benth. Pl. Hartw. p.* 8.

Hab. Zacatecas, Mexico. *Hartweg.*

An *Euphorbia* very distinct from any hitherto described, with the habit, as Mr Bentham observes, of *E. Ipecacuanha*, but very different in the involucres and in the extremely narrow leaves. Root a globose bulb, with a few fibres from below. Involucre cup-shaped, 1-2 between each upper pair of leaves, or from the axil of the upper dichotomies, hairy, with 5 glands at the margin, each spreading out into a white petaloid 2-3-cleft appendage. Inner laciniæ alternating with these, short, membranous, bifid, and denticulate.

Fig. 1, 2. Involucres with male flowers. *f.* 3. Gland from the margin. *f.* 4. Inner lacinia:—*magnified.*

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TAB. CCCXLVII.

Epidendrum microbulbon.

Pseudo-bulbo parvo ovato vaginato diphyllo, foliis lato-linearibus scapo brevioribus, racemo paucifloro, sepalis petalisque conformibus, labello sublibero oblongo trilobo disco lamellato lamellis undulatis, lobo intermedio subrotundo integerrimo crispato.

Hab. Oaxaca, Mexico. *Robert Smith, Esq.*

Introduced by Robert Smith, Esq., of Oaxaca, to the gardens at Woburn Abbey. It would belong to the *Encyclia* division of *Epidendrum*, or that group which has the labellum almost entirely free from cohesion with the column. Its nearest affinity is perhaps with the *Encyclia patens* (Bot. Mag. t. 3013, *Epidendrum odoratissimum*, Lindl. Bot. Reg. t. 1415), and is chiefly distinguished by its narrower sepals and petals, not at all spathulate.

Fig. 1. Column. *f.* 2. Labellum:—*magnified.*

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TAB. CCCXLVIII.

Maxillaria angustifolia.

Pseudo-bulbis proliferis oblongis lævibus vetustis subsulcatis, pedunculis bulbo longioribus unifloris, sepalis petalisque conformibus oblongis, labello oblongo obscure trilobo disco tuberculo oblongo lobo medio ovato.

Hab. Mexico. *J. Parkinson, Esq.*

Sent by Mr Parkinson to Woburn in 1838. The pseudo-bulbs rise one above another in a proliferous manner, and are more or less sheathed with membranous, brownish scales. The single-flowered peduncles spring solitary from the base of each pseudo-bulb. The perianth is of a tawny yellow colour, the labellum of a deeper tint.

Fig. 1. Column, petals, and labellum. *f.* 2. Back view; and *f.* 3. Front view of the pollen-masses:—*magnified.*

Allan & Ferguson Lith

TAB. CCCXLIX.

Rubus rosæfolius.

Caule teretiusculo piloso, aculeis patentibus subrecurvis, foliis pinnatis pilosiusculis, pinnis lanceolatis duplicato-serratis glanduloso-punctatis, stipulis lineari-setaceis, pedunculis subunifloris, laciniis calycinis lanceolatis longe acúminatis petalis vix longioribus, carpellis glabris numerosissimis minoribus exsiccatione lacunoso-rugosis. *DC.*

Rubus rosæfolius. *Sm. Ic. Ined.* 3. *p.* 60. *t.* 60. *De Cand. Prodr. v.* 2. *p.* 556.

β. *coronarius;* petalis numerosis calyce multo longioribus. *Sims in Bot. Mag. t.* 1783. *De Cand. Prodr. l. c.*

Rubus Sinensis. *Hortul.*

Rubus Commersonii. *Poir. Dict.* 6. *p.* 242. (*fide De Cand*).

Hab. Mauritius. *Thouin* (in Smith). Molucca islands, *Bojer* (in *Hort. Maurit.*), who observes that it is naturalized in Mauritius. Table Mountain, Cape of Good Hope, *Ecklon.* Foot of Table Mountain. *Hon. W. H. Harvey.*

Smith gives this plant, on the authority of Thouin, as an inhabitant of the Mauritius. Bojer, who has so long resided in that country, tells us it is naturalized there, and comes from the Moluccas. De Candolle, who also states Mauritius to be its native country, nevertheless adduces the *R. Commersonii*, Poir. as a synonym: but that is said to have a reddish fruit the size of a raspberry, but with a much less agreeable taste and smell: from which it may be inferred that it is juicy; while the fruit of our plant is, according to Mr Harvey, as dry "as in *Potentilla.*" Ecklon and Mr Harvey (and to this latter gentleman we are indebted for the drawing here figured) find the species, to all appearance wild, about Table Mountain, Cape of Good Hope, and perhaps that is really its native country.

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TAB. CCCL.

XIMENIA PARVIFLORA. *Benth.*

Spinosa, ramis flexuosis, foliis oblongo-lanceolatis, floribus axillaribus glomeratis 4-5-meris 8-10-andris. *Benth. Plant. Hartweg. p.* 7. *n.* 28.

HAB. Zacatecas, Mexico. *Hartweg.* (*n.* 28.)

Rami angulati, rigidi. *Spinæ* fere in omnibus axillis. *Flores* in racemulis axillaribus brevissimis 5-10-floris dispositi, dimidio fere minores quam in *X. Americana.* *Pedicelli* oppositi. *Bracteæ* minutæ. *Calyx* minutus, laciniis acutis. *Petala* siccitate nigra, intus ad medium rufo-barbata, barba multo breviore quam in *X. Americana.* *Filamenta* filiformia. *Antheræ* oblongæ, filamento ipso longiores. *Stylus* brevis, conicus, stigmate simplici acutiusculo. *Ovarium* breve, carnosum, 3-4-(5?)loculare, ovulo in quoque loculo solitario pendulo. *Benth. l. c.*

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamen. *f.* 4. Anther cut through transversely. *f.* 5. Pistil cut through transversely: —*magnified.*

TAB. CCCLI.

Harveya purpurea. *Harv. mst.*

Calyce profunde 5-fido lobis lanceolatis tubi corollæ pubescentis inflato-ventricosi dimidium æquantibus, corollæ limbo planiusculo margine undulato.

Orobanche Uitenhagensis. *Eckl.*

Hab. Uitenhage, South Africa; *Zeyher.*

Our character of the genus *Harveya* is given at Tab. CXVII. of this work, together with a figure of the only species then known to us. The present is distinguished from it by the different form of the calyx, and of that of the tube of the corolla, which is, moreover, hairy or downy, and by the less crisped limb of the latter. The scales are more numerous on the scape or stem, and the colour, judging from the name, is purple, not pale rose. It is one of the many discoveries of Mr Zeyher in Uitenhage, and the drawing is made from the dried specimen of our friend Mr Harvey at the Cape.

The specific character of *H. Capensis* may stand thus:—

Calyce campanulato breviter 5-fido, tubo corollæ glabro cylindraceo superne sensim dilatato, limbi margine undulato erosocrispato. (Tab. CXVII.)

TAB. CCCLII.

Pappea Capensis, *Eckl. et Zeyh.*

Gen. char. *Flores* abortu diclines. Cal. inæqualiter 5-partitus. *Petala* 4—6, intus barbata.—Masc.: *Stamina* 8—10, disco annulari hypogyno inserta, filamentis villosis.—Fœm.: *Ovarium* 3-loculare, loculis 1-ovulatis. *Stylus* 1 (ex 3 coalitis.) *Stigma* sub-3-fidum. *Carpella* 3, capsulari-drupacea, basi connata, globosa, sæpe 1—2 abortiva.—Arbor 15—20-*pedalis*. Folia *obovato-oblonga, obtusa, margine revoluta, coriacea, glaberrima, ramulorum apice congesta.* Racemi *nudi, ramulorum apice congesti;* masc. *folia subæquantes;* fœm. 4—6-*flori brevissimi.* —*Eckl. et Zeyher.*

Pappea *Capensis, Eckl. et Zeyh. En Pl. Afr. Austr. p.* 53; *Harv. Gen. S. Afr. plants, p.* 37; *Arnott in Journ. Bot.* 3. *p.* 258.

Kiggelaria integrifolia, *E. M. in Drege's herb.* (*excl. syn. Jacq.*)

Its fruit called "*Wild Preume,*" is fleshy, and is eaten, and an oil is expressed from the seeds.—*Kiggelaria integrifolia,* Jacq., judging from the figure given by that Botanist, is totally unlike the present plant. In it the leaves are scattered over the branches, and not collected at their extremity; the branches are larger and more simple; its leaves are pubescent on both sides, and dark green on their upper surface; the racemes more lax and fewer flowered, while the flowers themselves are cernuous; the petals are large, as in *Kiggelaria,* and longer than the stamens; the plant is polyandrous, and there are two diverging styles. Moreover, it appears that *Kiggelaria integrifolia* and *Pappea* were both found by Ecklon and Zeyher, and referred the one to *Flacourtianeæ;* the other, and correctly so, to *Sapindaceæ.*—*Arn.*

Fig. 1. Male flower, side view. *f.* 2. Ditto, front view. *f.* 3. Inner view of a petal. *f.* 4. Outer view of do. *f.* 5. Stamen. *f.* 6. Fruit, *nat. size. f.* 7. Fruit with one cell, or lobe, laid open: all but *f.* 6. *magnified.*

TAB. CCCLIII.

PASSIFLORA LESCHENAULTII.

Scandens, foliis semiorbicularibus truncatis tricuspidatis subtus pubescentibus eglandulosis, petiolis medio biglandulosis, cirrhis simplicibus, pedunculis geminis unifloris, calyce involucrato, petalis 5, fructu ovoideo stipitato, stipite calycis longitudine.

Passiflora Leschenaultii. *De Cand. Prodr.* 3. *p.* 326. *Wall. Cat. n.* 1231. *Wight, Cat. n.* 1154. *Wight et Arn. Prodr. Fl. Pen. Ind. Or.* 1. *p.* 353.

HAB. East Indies, Neelgherries; *Dr Wight.* At Mayaburan; *Sir Frederic Adam, G.C.B.*

Our specimen of this Passion-flower, a Genus of very rare occurrence in the Old World, was kindly presented to me with a considerable collection of other plants from the Neelgherries, by Sir Frederic Adam, late governor of Madras, and I have thought it deserving of a figure in this little work. The colour of the flower appears to be white; the rays are long, not very crowded, and equal in length with the petals.

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TAB. CCCLIV.

EUTOCA? LUTEA.

Nana diffusa pubescenti-scabra ramosa, radice multicipiti annua, foliis petiolatis subrotundo-obovatis basi cuneatis crenato-lobatis superioribus subintegerrimis, ovariis 8-ovulatis, corolla campanulata marcescente persistente (lutea) calycem paullo superante.

Eutoca? lutea. *Hook. et Arn. in Bot. of Beech. Voy. p.* 373.

HAB. Snake Fort, Snake Country, California; *Mr Tolmie.*

This is a very remarkable and a beautiful species, with bright yellow flowers (looking at the first glance like those of some cruciferous plant.) The seeds are deeply wrinkled on the back. It differs from *Eutoca* by the persistent but marcescent corolla, and from *Emmenanthe* by its habit and by the absence of the scales of the corolla.

Fig. 1. Flower. *f.* 2. Corolla laid open. *f.* 3. Pistil. *f.* 4. Fruit with persistent calyx and corolla. *f.* 5. Capsule. *f.* 6. The same burst open, showing the seeds. *f.* 7, 8. Seeds:—*magnified.*

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TAB. CCCLV.

Eutoca Aretioides.

Nana diffusa hispido-pilosa trichotome ramosa, radice multicipiti annua, foliis petiolatis spathulato-lanceolatis basi longe attenuatis integerrimis, ramulis ultimis brevibus congestis, floribus sessilibus terminalibus et in dichotomiis, calycis profunde 5-partiti laciniis anguste linearibus hispidis tubo corollæ infundibuliformis (purpureæ) duplo brevioribus, ovario multiovulato.

Eutoca aretioides. *Hook. et Arn. in Bot. of Beech. Voy. Suppl. p.* 374.

β. *perpusilla;* caule subnullo paucifloro. *Hook. et Arn. l. c.*

Hab. Burnt and Malheur rivers, Snake Country, California; communicated by *Mr Tolmie.*

A widely different species from any *Eutoca* hitherto described, and as already observed by Dr Arnott and myself, it may be found to constitute a distinct genus. The corolla is singularly long and funnel-shaped; the stamens unequal; the calyx segments almost setaceous, and persisting when the frond is ripe.

Fig. 1. Flower. *f.* 2. Pistil. *f.* 3. 3. Stamens. *f.* 4. Fruit and persistent calyx. *f.* 5. One valve of the fruit with seeds:—*magnified.*

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TAB. CCCLVI.

Wimmeria. *Cham. et Schlecht.*

Gen. Char. *Flores* hermaphroditi, regulares, pentameri, præfloratione imbricati. *Cal.* parvus, obtuse lobatus. *Petala* sub margine disci inserta, sessilia, subconcava, marcescentia. *Stam.* ibidem inserta, cum petalis alternantia. *Antheræ* biloculares lateraliter et longitudinaliter dehiscentes. *Discus* carnosus, lobatus. *Germen* disco impositum, basi immersum, pyramidato-trigonum, triloculare, loculis pluri-ovulatis; ovulis basi affixis. *Stylus* brevis. *Stigma* trilobum, terminale. *Pericarpium* samaroides, triquetrum, tripterum, abortu uniloculare, monospermum.—Arbusculæ *glabræ, habitu Celastri, foliis exstipulatis alternis integris serratis, inflorescentis cymosis axillaribus.—Cham. et Schlecht.*

Wimmeria *concolor;* foliis concoloribus.—*Cham. et Schlecht. in Linnæa, v.* 6. *p.* 428. *Benth. Pl. Hartweg, p.* 9. *n.* 41.

Hab. Mexico, near Xalapa; *Scheide and Deppe.* Zacatecas. *Hartweg, n.* 41.

The character of this genus depends on the indehiscent, one-seeded, samaroid fruit, according to the authors of it. Mr Bentham justly observes that the peduncles here are only from 1—3-flowered. They are more divided according to Chamisso and Schlechtendal.

Fig. 1. Flower-buds. *f.* 2. Flower. *f.* 3. Pistil and hypogynous disk. *f.* 4. Ovary cut through transversely :—*magnified.*

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TAB. CCCLVII.

Mozinna spathulata. β.

Gen. Char. Mozinna. *Orteg.* Loureira. *Cav.*—*Flores* dioici. *Cal.* 5-partitus. *Cor.* urceolata, 5-loba. *Glandulæ* 5.—Masc.: *Stam.* 8—13, filamentis infra coalitis, 5 exteriora breviora.—Fœm.: *Stylus* bifidus. *Stigmata* 2, late emarginata, aut 4 linearia. *Capsula* calyce persistente infra cincta, 2-valvis, 2-cocca, coccis monospermis, interdum abortu 1-locularis, 1-sperma.—Frutices *succo fœtido gummoso.* Folia *alterna aut fasciculata, stipulacea, integra aut rarius lobata, pilis glanduliferis interdum* (*sicut calyces*) *ciliata.* Flores *bracteati, axillares aut terminales, fœminei solitarii geminative, masculi fasciculati aut corymbosi.*—*Adr. Juss.*

Mozinna *spathulata*; foliis cuneatis integris v. trifidis eglandulosis. *Ortega, Dec.* 8. *p.* 105. *t.* 13.

Loureira cuneifolia. *Cav. Ic. t.* 5. *p.* 17. *f.* 429.

β. *sessiliflora;* foliis omnibus integris, floribus sessilibus pubescentibus. (Tab. nostr. CCLVII.) *Benth. Pl. Hartweg, p.* 9. *n.* 37.

Hab. Zacatecas, Mexico; *Hartweg,* (*n.* 37.)

Stems very stout, and rather succulent than woody, wrinkled when dry, and clothed with a dark olive-coloured shining bark, bearing numerous warty excrescences, from whence the leaves and flowers arise. These flowers in our specimen are all male; and they, as well as the leaves, are very much smaller than in the plant of Ortega and Cavanilles.

Fig. 1. Male flower. *f.* 2. Glands and stamens from the same:—*magnified.*

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TAB. CCCLVIII.

Lobelia trigona. *Roxb.*

Glabra, ramis diffusis erectis vel adscendentibus cauleque trigonis trialatisve, foliis ovatis nunc subcordatis in petiolum brevem basi angustatis dentatis dentibus mucronulatis, pedicellis gracilibus bractea longioribus basi bibracteolatis, tubo calycis obconico, lobis lineari-acuminatis tubum subæquantibus, corolla glabra lobis calycinis subdimidio longiore, antheris inclusis omnibus apice barbatis, capsula obovoidea.

Lobelia trigona, *Roxb. Fl. Ind. I. p.* 506; (*ed. Wall.*) *II. p.* 111; *in E. I. C. Mus. Tab. Pict.* 439; *De Cand. Prod.* 7. *p.* 359.

Lobelia trialata, *Ham. in Don. Prod. Fl. Nep. p.* 157; *De Cand. Prod.* 7. *p.* 360.

Lobelia stipularis, *Roth. in Roem. et Sch. Syst.* 5. *p.* 67.

Lobelia Heyneana, *Roem. et Sch. Syst.* 5. *p.* 50.

Lobelia micrantha, *Hook. Exot. Fl. I. t.* 44.

Hab. Ceylon, at an altitude of 6000 feet; *Col. Walker.* Peninsula of India; *Dr Wight.* Neelgherries; *Sir F. Adam.* Simla; *Lady Dalhousie.* Nepal; *Dr Wallich.*

The form of the leaf, especially at the base, and the length of the petiole, is so variable that we have little doubt of these synonyms belonging to the same species. It is also the *L. Zeylanica* of many herbaria; but the Linnæan species of that name appears to be a Chinese plant with villous capsules, while the *Campanula ceilanica* of Seba, from whom Linnæus borrowed the name, appears perfectly distinct from either, and, if really from Ceylon, may be referred to *L. radicans*, Wall., although it has more the habit of some Cape species.—*Arn.*

Fig. 1. Small specimen from the Neelgherries. *Sir Fred. Adam. f.* 2. Portion from Dr Wallich's specimen. *f.* 3. Plant from Ceylon. *Colonel Walker; nat. size. f.* 4. Side view of a flower. *f.* 5. Capsule. *f.* 6. Portion of the stem:—*magnified.*

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TAB. CCCLIX.

Arabis puberula. *Nutt.*

Perennis subcæspitosa magis minusve pubescens pilis densis stellata, foliis integerrimis lineari-lanceolatis sessilibus, siliquis planis rectis pendulis, pedicellis longitudinem sepalorum duplo æquantibus, seminibus leniter marginatis. *Nutt.*

Arabis puberula. *Nutt. in Torr. et Gr. Fl. of N. Am. v.* 1. *p.* 82.

Forests of the Blue Mountains of Oregon (Columbia R.), N. America; *Nuttall.*

Our figure of this plant is taken from a specimen obligingly sent to us, with many other similar treasures, by Mr Nuttall, who observes that the specimens were all in fruit, that the pods are slightly pubescent, (scarcely apparent in our specimens,) and that the central nerve is obvious.

Fig. 1. Pod:—*magnified.*

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TAB. CCCLX.

Meconella Oregana. *Nutt.*

Meconella Oregana, *Nutt. in Torr. et Gr. Fl. of N. Am. v.* 1. *p.* 64.

Hab. Open plains of the Oregon (Columbia R., N. W. Am.,) near its confluence with the Walamet; *Nuttall.*

" An interesting but humble plant," Messrs Torrey and Gray observe, " which seems to stand between *Platystemon* and *Hypecoum*, two genera having apparently little relationship, yet that ought, notwithstanding their anomalies, not to be removed from *Papaveraceæ*. It agrees with the latter in its definite stamens, and with the former in the foliage and floral envelopes, dilated filaments, &c. The torus is somewhat like that of *Chryseis* on a small scale."

The following is Mr Nuttall's character of this genus:—Sepals 3, somewhat pilose. Pet. 5—6. Stamens 4—6. Filaments membranaceous, dilated* upwards; anthers very short, the cells disjoined. Stigmas 3, (rarely 4) linear, very short, sessile. Capsule pod-shaped, slender, 3 (rarely 4) valved: valves flat, 1-nerved, dehiscing from the apex to the base, not separating from the placentæ. Seeds numerous, smooth, and shining, subglobose.—A very small, annual, glabrous, and somewhat glaucous herb. Stamens slender, dichotomously branched. Radical leaves in a rosulate cluster, spathulate; cauline ones linear or linear-spathulate, opposite; the lowermost ternate, entire. Peduncles axillary, filiform, 1-flowered. Flower very small, ochroleucous.

Fig. 1. Flower-bud, with calyx. *f.* 2. Expanded flower. *f.* 3. Capsule:—*magnified.*

* In our dried specimens the dilatation of the filaments is hardly perceptible.

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TAB. CCCLXI.

Oxalis Cratensis.

Herbacea erecta ramosa glabra, caule folioso, foliis sublonge petiolatis unijugis cum impari petiolulato subrhombeo-ovatis obtusis, pedunculis axillaribus folium æquantibus apice bifidis racemosis, rachibus (floribus delapsis) denticulatis, sepalis ovatis non sphacelatis, filamentis glabris, stigmatibus patentibus, staminibus brevioribus iis longioribus.

Hab. Moist cane fields about Crato, Brazil; *Mr Gardner.*

Root branching, annual. Stems 8 or 10 inches to a foot high, rounded, herbaceous, glabrous. Leaves on rather long slender petioles, bearing 3, ovato-rhomboid, glabrous leaflets, about an inch long, the two lateral ones smaller, nearly sessile, the terminal one on a petiolule one-fourth the length of the leaflet. Peduncles axillary, about as long as the leaf, bifid at the extremity, each branch being a raceme of flowers which elongates as the flowers fall off, leaving a toothed rachis. Calyx glabrous: sepals ovate, acute, green, not sphacelate nor spotted. Petals pale pink, united by their bases. Filaments 5 long, and 5 short, united at the base into a distinct tube, glabrous. Anthers short, all alike. Germen ovato-globose. Styles spreading, the dilated stigmas protruded between the filaments, shorter than the shortest stamens.

Nearly allied to *O. Barrellieri* of Jacq. I have not Jacquin's figure to refer to. Lamarck describes that plant as fruticose, while ours is certainly annual. Sir James Smith, however, speaks of it as annual, and Barrellier's figure evidently appears to be so too, and is indeed a good representation of our plant. Our figure was taken from a living specimen which was raised from seeds sent by Mr Gardner.

Fig. 1. Flower. *f.* 2. Portion of the corolla. *f.* 3. Stamens and pistil. *f.* 4. Pistil:—*magnified.*

TAB. CCCLXII.

Kandelia Rheedei.

Gen. Char. Kandelia, *Wight et Arn.*—*Calyx* 5-fidus; laciniæ tubo 3—4-plo longiores, lineares, patentes. *Petala* 5, membranacea, glabra, basi lineari subcanaliculata, ultra medium bifida, laciniis in fila plurima capillaria longa inæqualiter fissis. *Stamina* petalorum numero 6—8-pla; *filamenta* subulato-capillaria, calycis lacinias fere æquantia: *antheræ* oblongæ, parvæ, obtusæ, dorso paullo supra basin affixæ. *Ovarium* adhærens, 1-loculare, 6-ovulatum. *Stylus* filiformis stamina subsuperans. *Stigma* 3-dentatum. *Fructus* oblongus, basi laciniis calycinis patentibus coronatus, tubo multo longior.—Arbor *parva*. Folia *anguste elliptico-oblonga, obtusa*. Pedunculi *petiolo longiores*, 2—3-*chotomi*, 4—9-*flori*. Flores *majusculi nunc rarius* 6-*meri:* alabastra *prismatica*. Calyx *bractea cupulata suffultus*. *Embryonis germinantis* tigellus *clavato-subulatus, acutissimus.*—*Arn.*

Kandelia *Rheedei*. *Wight et Arnott, Prodr. Fl. Penins. Ind. Or. v.* 1. *p.* 311; *Wight Cat. n.* 1042; *Arnott in Ann. of Nat. History, v.* 1. *p.* 365; *Griffith on Rhizophora, p.* 9.

Rhizophora Candel. *Linn. Sp. Pl. p.* 634; *De Cand. Prodr.* 3. *p.* 32; *Spreng. Syst. Veg.* 2. *p.* 235.; *Wall. Cat. n.* 4876. *Rheed. Hort. Mal. v.* 6. *t.* 35.

Hab. Malabar and Bengal.

Mr William Griffith of the Madras Medical service, in his memoir on *Rhizophoreæ*, approves of the genus constituted by Drs Wight and Arnott, but observes that the character of the ovary as given by them is at variance with the usual structure and with his own observations made on living plants. Dr Arnott, however, about the same time repeated his analysis and found no appearance of dissepiments. Perhaps they are extremely fugacious and disappear by the drying of the specimen.

Some apology is necessary for figuring this plant without any dissections; but the drawing was too hastily, and without my knowledge, sent to the printers and transferred to the stone; and in this kind of art it is well known that additions cannot be so easily made, after the proofs are taken off, as in copperplate engraving.

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TAB. CCCLXIII.

FUMARIA MICRANTHA, *Lag.*

Foliorum segmentis anguste linearibus canaliculatis ultimis brevibus, bractea spathulato-lineari acuta pedicellum patulum subæquante, sepalis peltatis orbicularibus basi subcordatis inciso-dentatis margine undulatis dorso concavis corolla subduplo brevioribus ac $1\frac{1}{4}$—2-plo latioribus, fructu globoso subapiculato.

F. micrantha. *Lag. Cat. Hort. Madr. p.* 21. *DC. Syst. Veg. II. p.* 137; *Prodr. I. p.* 130. *Arnott in Third Report Bot. Soc. Edin. p.* 104, 107.

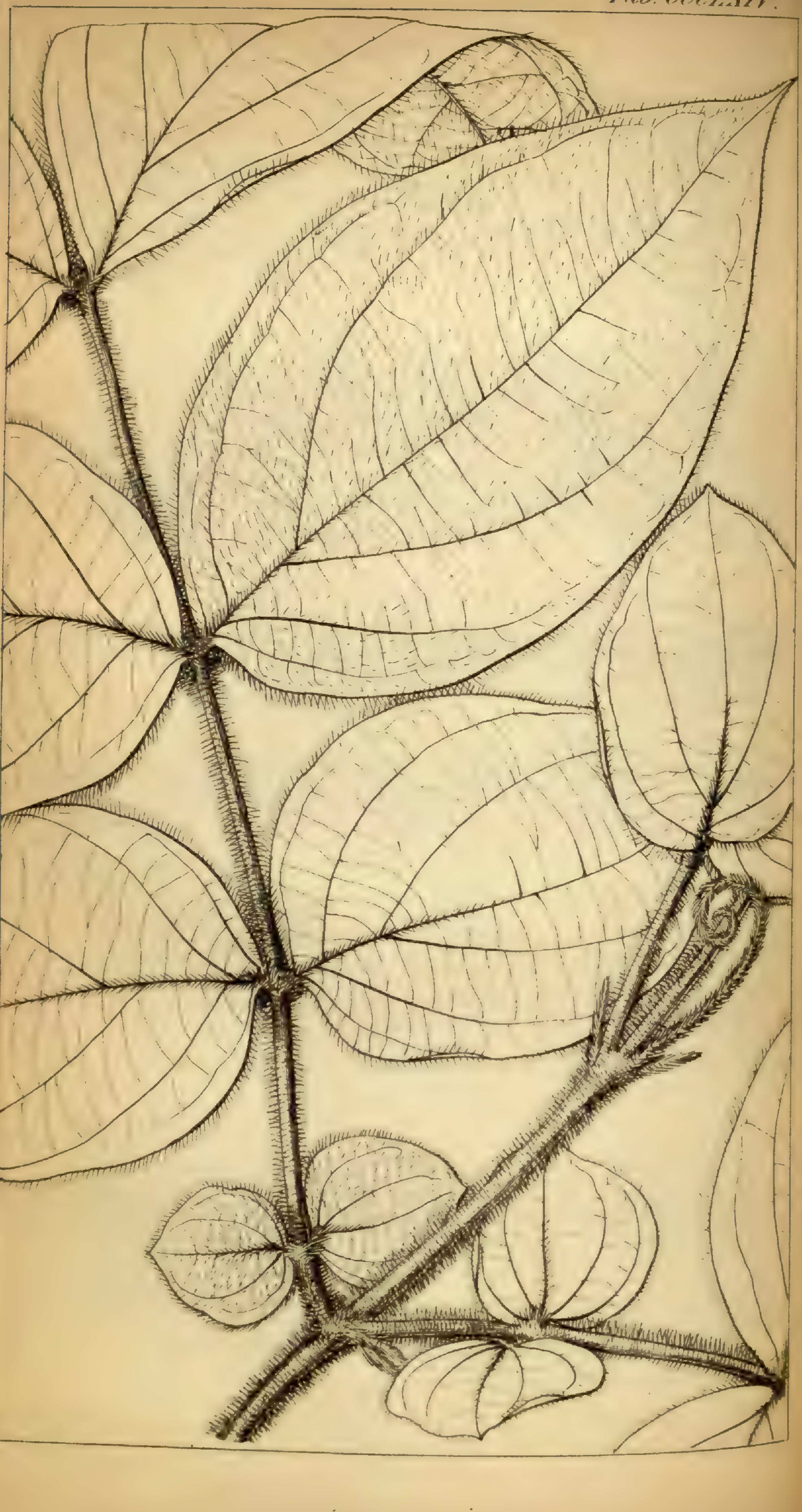
F. calycina. *Bab. in Fourth Report Bot. Soc. Edin. p.* 34.

HAB. Spain; *Lagasca.* Montpelier; *Dr Walker Arnott.* Scotland; first discovered in the neighbourhood of Edinburgh, by *D. Steuart, Esq.*, but since met with by various collectors in East Lothian, Perthshire, and Forfarshire.

We believe that no specimen named by Lagasca exists in any herbarium; but as the beautiful character derived from the sepals is so distinctly pointed out by that Botanist in the words "calycibus cordato-rotundatis corollæ tubo latioribus," we presumed that no doubt could exist as to the propriety of referring our plant to his. Mr Babington, however, on the authority of our friend Dr Klotzsch of Berlin, says that Lagasca's is different; but as no proof of this is offered, no notice given of the points in which the two differ, no description made of the specimen in the possession of Dr Klotzsch, so that one might judge how far it agrees with Lagasca's character, nor any mention made whence that specimen was obtained, we are still disposed to adhere to our former opinion.—*ARN.*

Fig. 1. Flower. *f.* 2. Fruit:—*both magnified.*

Fig. A. Flower (*magnified*) of *F. capreolata*, γ. *Anglica*, Arn. in Third Report, Bot. Soc. Ed. p. 101, 106, or *F. capreolata* of British Botanists, which has been confounded by De Candolle with his *F. media*, (a form of *F. officinalis*), but rather resembles *F. micrantha* in its large calyx, although extremely different in other respects.



Tab. CCCLXIV.

Strychnos toxifera, *Schomb.*

(Ourari or Wourali poison of Guiana.)

Ramis scandentibus cirrhisque pilis longis patentibus rufis dense obtectis, foliis sessilibus ovali-oblongis acuminatis membranaceis trinerviis utrinque pilis longis rufis hirsutis, floribus ....., fructibus maximis globosis. *Benth.*

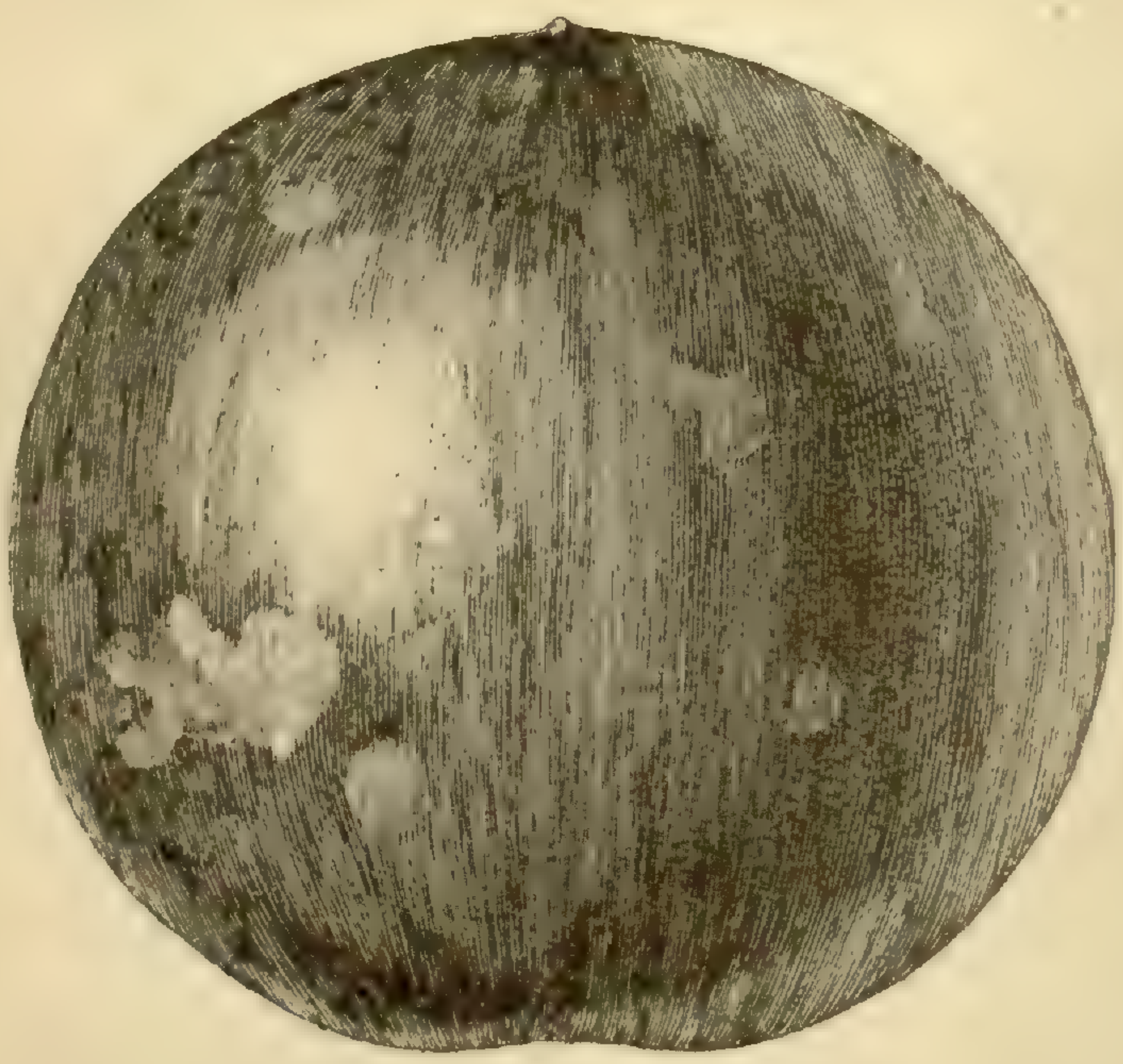
Strychnos toxifera. *Schomb. in Benth. Guian. Pl. in Hook. Journ. Bot. v. 3. p. 240.*

Hab. British Guiana; *Schomburgk*, (*n.* 155.)

Every one, the readers of "Waterton's Wanderings" and those acquainted with Brande's experiments especially, is familiar with the name of Ourali or Wourali poison, whose effects are so powerful on animal life. We believe that no European has seen the plant, either in a living or dried state, till the distinguished traveller, to whom we are indebted for the specimens here figured, ascended the Rupunoony river in British Guiana. Being informed that the plant grew in the Conocon Mountains, he made a detour in order to have the gratification of seeing it; and under the guidance of some Indians, was directed to a ligneous twiner, at which they called out "Ourari," the name of the plant in Warpeshana.

"The stem," Dr Schomburgk continues, "is often more than three inches thick, and very crooked; its bark rough, and of a dark greyish colour; the branches thin, and inclined to climb; the leaves dark green, and opposite, ovate, acute, 5-nerved and veined; young branches and leaves hirsute; hairs brown, cirrhiferous; the cirrhi, however, not found on every branch. Fruit (see our Tab. CCCLXV.) of the size of a large apple, round, smooth, bluish green. Seeds imbedded in a pulp, consisting chiefly of a gummy matter, which is intensely bitter. We observed many heaps of the cut wood covered with palm trees, which, as the Indians told us, had been left by the Marroons. The plant grows only in two or three places, which are resorted to by the Indians from all directions, and often from a great distance."

Our Tab. CCCLXIV. represents a sterile branch: (the flowers are yet unknown to us.) The fruit is exhibited in the following plate.



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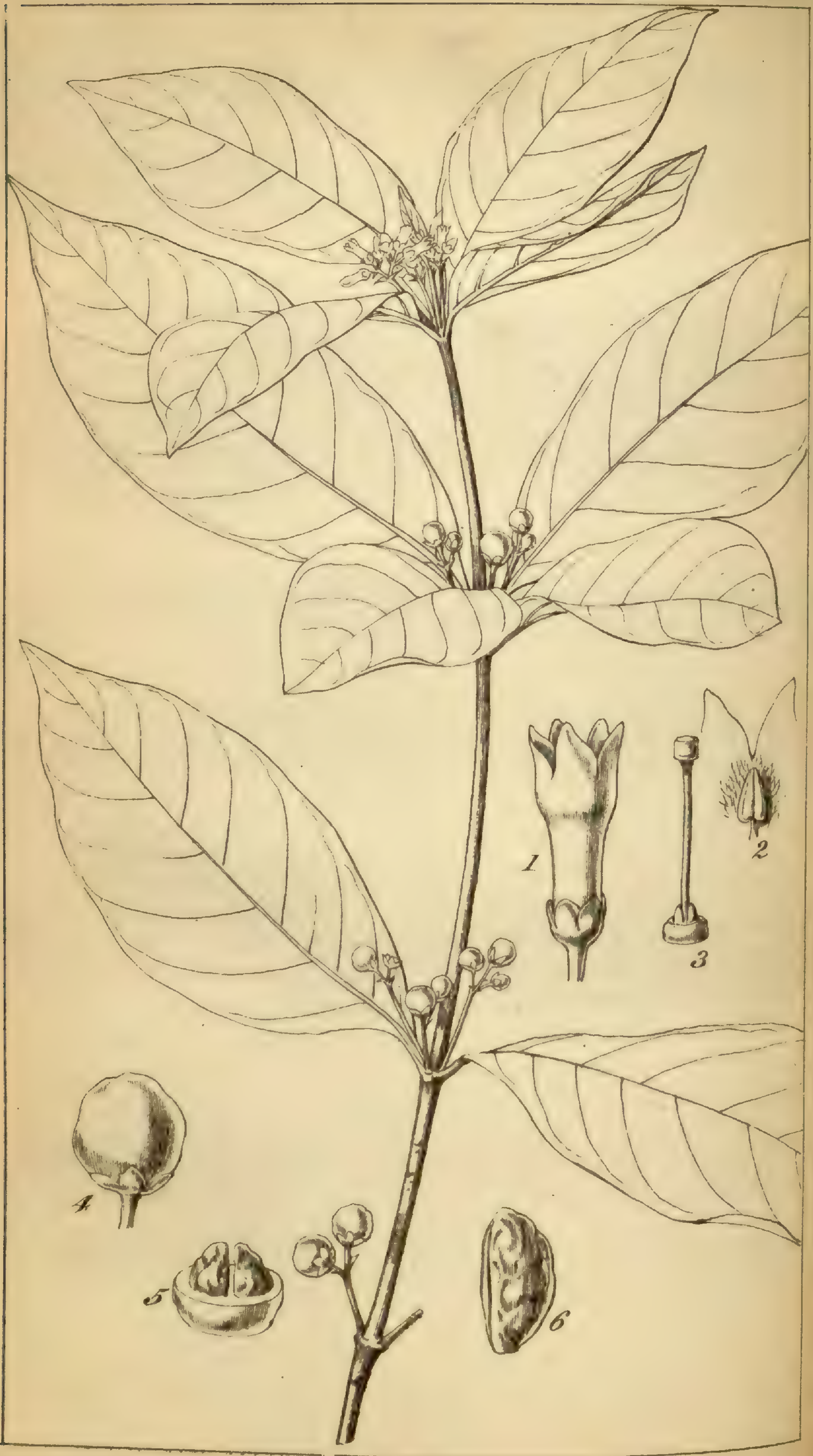
TAB. CCCLXV.

STRYCHNOS TOXIFERA. *Schomb.*

(See the preceding description.)

This plate represents the fruit; *nat. size*, and *f.* 1. a seed, and *f.* 2. inside of one of the cotyledons, *do.*

We need scarcely inform our readers, that the well-known *nux vomica* of the shops, is the product of a plant of the same genus with the present.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TAB. CCCLXVI.

Rauwolfia heterophylla. *Herb. Willd.*

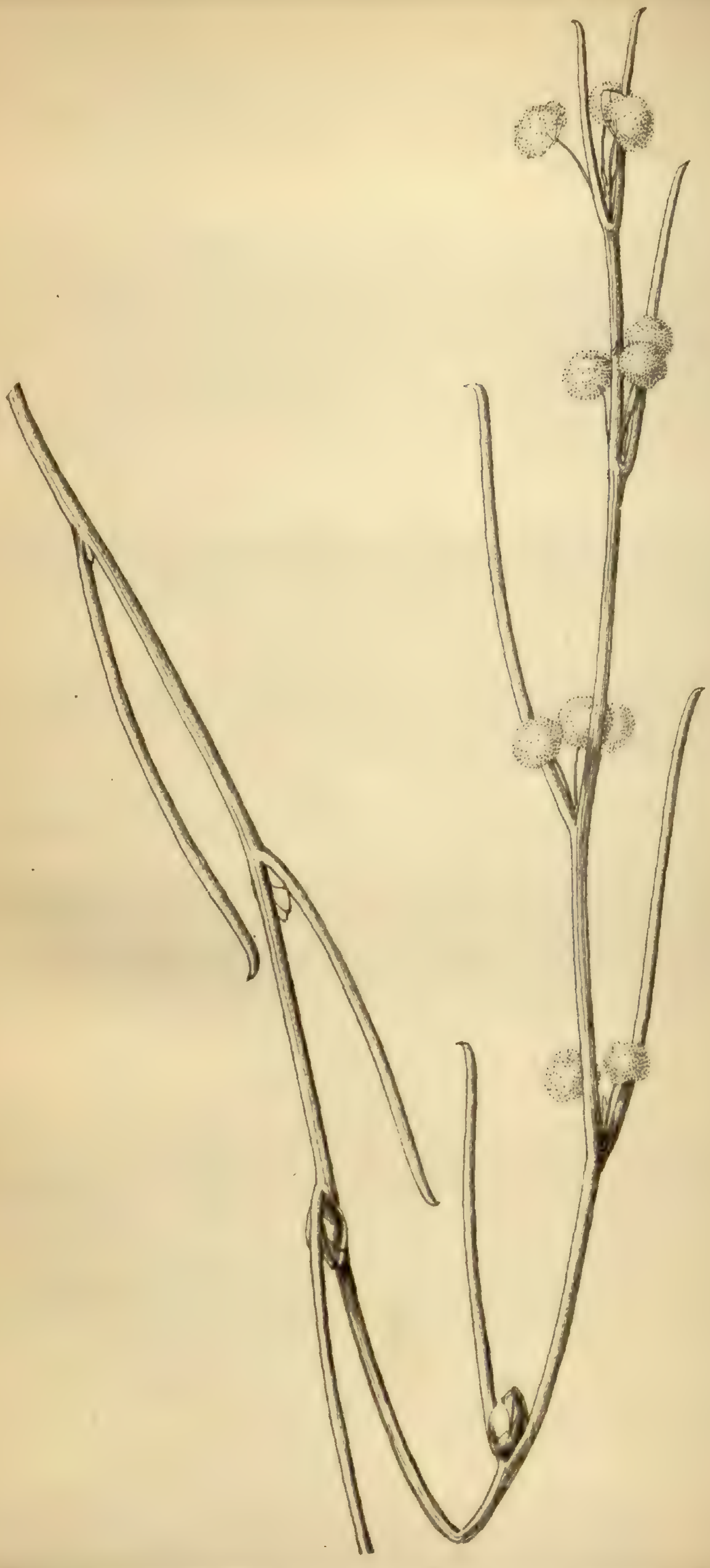
Ramis angulatis glabris, foliis oppositis ternis quaternisque inæqualibus membranaceis ellipticis acuminatis penninerviis sub lente minute farinosis demum nudis, petiolis brevibus canaliculatis margine superne ciliato-aculeolatis, cymis pedunculatis paucifloris, baccis parvis pisiformibus.

Rauwolfia heterophylla. *Willd. Herb. n.* 5098. *Roem. et Sch. Syst. Veget. v.* 4. *p.* 805. *Schlecht. et Cham. in Linnæa, v.* 5. *p.* 125.

Hab. Mexico, Puente del Rey; *Schiede and Deppe.* Xalapa; *Galeotti.*

This plant is well described by Chamisso and Schlechtendal in the work above quoted. In my specimens the lower leaves are opposite, the rest ternate or quaternate, more or less unequal. Flowers few, small, in axillary cymes. Lobes of the small calyx rounded, imbricated. Corolla funnel-shaped, bearded within at the back of the anthers. Germen small, two-lobed, seated on an hypogynous gland. Berry or drupe, small, with two hard wrinkled nuts.

Fig. 1. Flower. *f.* 2. Portion of the corolla, to show the tuft of hairs at the back of the anther. *f.* 3. Pistil. *f.* 4. Drupe or berry. *f.* 5. The same cut open to show the nuts. *f.* 6. One of the nuts:—*magnified.*



TAB. CCCLXVII.

Acacia squamata. *Lindl.*

Ramis phyllodiisque rectis apice recurvis eglandulosis acutis teretibus glabris, stipulis nullis, capitulis geminatis ternisve pedunculatis e squamis imbricatis deciduis erumpentibus, filamentis discoloribus.—*Lindl.*

Acacia squamata.—*Lindl. Sketch of the Botany of Swan River, p.* xv. *n.* 63.

Hab. Swan River Settlement, N. Holland; *James Drummond.*

A very remarkable species of the extensive leafless group of Australian *Acaciæ*. The *Phyllodia* resemble branches or spines, hooked at the point. In the axils of these are seen ovate scaly buds; from them the flowers proceed, and the scales fall away as the flowers expand. The anthers are yellow, the numerous filaments deep tawny.

TAB. CCCLXVIII.

Viscum falcatum.

Trunco tereti, ramis ancipitibus sub dichotomiis dilatatis, foliis carnosis 3—5-nerviis falcatis obtusis semipedalibus, ♀ spicis axillaribus 1—3-pollicaribus sesquipollicaribusque, floribus verticillatis senis. *Cham. et Schlecht.*

Viscum falcatum. *Cham. et Schlecht. in Linnæa, v. 5. p.* 172.

Hab. About Xalapa ; *Schiede and Deppe. Galeotti.*

Our specimens of this Misselto consist of undivided branches from ten inches to a foot and more long. The lower and older portion of the plant is described as terete.—The whole is glabrous and more or less glossy. Branches very much compressed and two-edged, about two lines wide in the narrowest part, becoming much dilated immediately beneath the leaves, striated longitudinally and somewhat reticulated in the dried state. Leaves opposite, articulated obliquely on the very dilated portions of the stem, 6—8 inches long, linear-lanceolate, obtuse, tapering at the base, coriaceous, 3—5-nerved, the nerves connected by oblique nervelets, often reticulated. Spikes, in my specimens solitary in the axils, sometimes two and three according to Chamisso and Schlechtendal, an inch and a half to two inches long, jointed and moniliform, that is, contracted at the joints, and there having a short, bifid, membranaceous, slightly ciliated sheath, which receives the base of the articulation above it. Articulations one-fourth of an inch long, or more, cylindrical, covered all round (not senate) with small usually trimerous flowers which are too young to allow of my describing them.

TAB. CCCLXIX.

Acacia diptera.

Ramis foliaceis angustis bialatis glaucis marginatis foliorum loco in lobis falcatis apice mucronatis inflexis productis, stipulis nullis, pedunculis monocephalis racemosisque ancipitibus, capitulis pedunculatis. *Lindl.*

Acacia diptera. *Lindl. in Veget. of Sw. River, p.* xv.

Hab. Swan River Settlement, Australia; *James Drummond.*

A well-defined and singular looking *Acacia* of the Phyllodium group, yet destitute of phyllodia as well as of leaves. The racemes bear copious heads of yellow flowers.

Drummondianæ. N. O. Leguminosæ.

TAB. CCCLXX.

Acacia incrassata.

Stipulis parvis spinescentibus deciduis, phyllodiis coriaceis sparsis oblique triangularibus angulo unico (exteriore) mucronato altero glandulifero mutico nervo valido laterali margine undique incrassato, capitulis solitariis, pedunculis phyllodio longioribus.

Hab. Swan River Settlement, Australia; *James Drummond.*

A species closely allied to *A. decipiens*, especially to that state of it figured in the *Botanical Magazine, t.* 1745; but the phyllodia are more coriaceous, the nerve is thicker and more prominent, and what affords the best character, the margin is considerably elevated or thickened, especially at the truncated apex.

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TAB. CCCLXXI.

Prunus (Cerasus) samydoides.

Foliis sempervirentibus papyraceis ovali-lanceolatis basi acutis subtusque maculis duabus glandulosis venæ secundæ adjacentibus notatis apice obtuse acuminatis glaberrimis integerrimis subtus prominule penninerviis, racemis axillaribus subsessilibus solitariis aggregatisve, floribus 20—25-andris, staminibus calyce duplo longioribus, drupis parvis subglobosis acutiusculis.—*Cham. et Schlecht.*

Hab. Mexico. Xalapa; (*Galeotti*) and at Hacienda de la Laguna; *Schiede.*

The name is not inaptly applied, and we have little doubt of this being the plant of Chamisso and Schlechtendal, though that author does not notice the discoloured leaves, the underside in our dried specimen being of a much browner and paler tint than the upper one. We, on the other hand, have omitted to notice in the figure of the under side of the leaves a constant and very important character, namely, the ustulate spot on the second vein from the base on each side of the costa. It comes near the *P. Carolinianus*, but the leaves are less coriaceous and the flowers are much smaller.

Fig. 1. Flower, with bractea. *f.* 2. Flower laid open:—*magnified.*

TAB. CCCLXXII.

Crotalaria bupleurifolia.

Leviter pubescenti-pilosa, caule angulato subulato dichotome ramoso, foliis brevissime petiolatis ovato-ellipticis utrinque obtusis (lineari-lanceolatisque acutis) mucronatis, floribus subgeminis pedunculatis prope basin ramorum, bracteis subjunctis oppositis stipuliformibus decurrentibus apice hastato-acuminatis.—*Schl.*

Crotalaria bupleurifolia. *Schlecht. in Linnæa, 5. p.* 575. *Hook. et Arn. Bot. of Beech. Voy. Suppl. p.* 414.

β. foliis superioribus lineari-lanceolatis acutis. *Hook. et Arn. l. c.*

γ. foliis omnibus lineari-lanceolatis acutis. *Hook. et Arn. l. c.*

Hab. Mexico.—α. Hacienda de Laguna; *Schiede and Deppe.* Xalapa; *Galeotti.* β. and γ. Between San Blas and Tepic; *Dr Sinclair.*

This seems a very variable plant, and perhaps too nearly allied to *C. sagittalis* and *C. ovata* of the Southern States of North America.

TAB. CCCLXXIII.

Mimosa floribunda, *H.B.K.*

Fruticosa erecta, caule petiolisque aculeatis cum pedunculis ferrugineo-hispidis, aculeis sparsis, foliis conjugato-pinnatis pinnis supra demum glabriusculis subtus strigosis 4-foliolatis, quorum foliolis 3 semiovatis, quarto infimo interno abortivo minuto, pedunculis inferioribus axillaribus bi-ternisve petiolum æquantibus, superioribus racemoso-subpaniculatis, capitulis globosis densifloris.

Mimosa floribunda. *H.B.K., Nov. Gen. Am.* 6. *p.* 250. *Willd. Sp. Pl. v.* 4. *p.* 1031. *De Cand. Prodr. v.* 2. *p.* 426. *Cham. et Schlecht. in Linnæa, v.* 5. *p.* 591. *Hook. et Arn. in Bot. of Beech. Voy., p.* 287.

Mimosa Willdenovii. *Poir. Suppl. v.* 1. *p.* 50.

Hab. Near Cumana; *Humboldt.* Columbia; *Cuming,* (*n.* 1241). Mexico. Tepic; *Capt. Beechey.* Xalapa; *Schiede, Galeotti.*

Stems woody, erect, and, as well as the petioles, prickly, (the prickles short, slightly curved and scattered,) and they the peduncles are densely clothed with short spreading rigid and fulvous hairs. Leaves conjugate and pinnate, each pinna consists of four leaflets, with small subulate stipules at the base; the upper pair large, equal, semiovate, the inferior pair extremely unequal, of which the outer one resembles the upper ones, the inner exceedingly small, all mucronate, nearly glabrous above, beneath, clothed with close-pressed rigid hairs or bristles of a tawny colour, those at the margin being peculiarly hard and rigid. Peduncles 2 or 3 from the axils of many of the leaves, as long as the petioles, monocephalous; the upper ones from the abortion of the leaves form a sort of elongated panicle or raceme. Heads globose. The numerous stamens appear to have been purple.

TAB. CCCLXXIV.

Loranthus Schiedeanus.

Fruticosus, caule angulato, foliis lato-lanceolatis coriaceis falcatis 3—5-nerviis longe acuminatis, paniculis axillaribus terminalibusque, pedicellis bi-ternisve, calyce involucrato, corolla longissima (digitali) 4-fida, staminibus 6 longitudine corollæ stylum æquantibus. *Schlecht.*

Loranthus Schiedeanus. *Schlecht. in Linnæa, v. 5. p.* 172.

Hab. Xalapa, Mexico; *Galeotti.*

This appears to be a large growing plant, with deeply angular almost winged stems and branches: leaves 5—6 inches long, penninerved as Schlechtendal accurately describes them, and subtriplinerved. The flowers are in copious corymbose panicles, 4—5 inches long, hexandrous; the calyx, truncate and nearly entire, is included at the base within a cup-shaped involucre, resembling an outer calyx.

I am indebted to Wm. Harris, Esq. of Kingsbury, for the possession of this and many other fine Mexican plants.

TAB. CCCLXXV.

Drosera bulbosa.

Radice bulbosa tunicata nitida, caule simplici squamoso, foliis terminalibus obovato-cuneatis erectis (parvis), pedunculis congestis unifloris foliis subduplo longioribus.

Hab. Swan River, New Holland; *James Drummond.*

The root of this has the appearance of a true bulb, and is of the size of that of our common Crocuses, externally consisting of a number of dark brown glossy layers or coats, not tinging the paper with a purple dye as do the tuberous roots of this Genus. The stem is scarcely three inches high, rather thick, and clothed with jagged brown scales, probably the remains of former leaves. The perfect leaves are few in number, eight or ten, confined, as in the preceding species, to the apex, small, obovato-cuneate, clothed on the upper surface and at the margin with glandular hairs. From within these arise 2—8 or 10 single-flowered peduncles, about twice as long as the leaves, and as well as the calyx quite glabrous.

This comes near the *D. erythrorhiza,* Lindl. in Sw. R. Veget. p. xx. *n.* 90; but that has the flowers in a pedunculated cyme and the leaves much broader. In our present plant, however, the foliage is evidently young; in some specimens, received from Mr Drummond since the figure was made, the leaves are large and conceal more of the peduncles.

TAB. CCCLXXVI.

Drosera macrophylla.

Radice tuberosa solida, caule elongato nudo simplici apice folioso basi dilatato et cum tubere articulato, foliis (magnis) cuneatis rosulatis vix in petiolum attenuatis apice truncatis supra marginibusque glanduloso-pilosis, pedunculis aggregatis folio longioribus 2—3-floris.

Drosera macrophylla. *Lindl. Sketch of Swan River Botany, p.* xx. *n.* 91.

Hab. Swan River, New Holland; *James Drummond.*

The root of this beautiful plant is a small solitary tuber, about the size of a pea, imparting, as does the base of the stem, a beautiful purple dye to the paper on which the specimen is fastened. The stem is articulated as it were on the top of this, and, at the point of attachment, much swollen, probably about to form a new tuber for the following year: the rest of the stem, about four inches long, is as thick as a crow's quill, naked, or only marked with the scars of the fallen leaves. The present year's foliage is confined to the summit of the stem, rosulate, of 10—12 leaves: these leaves are the largest of any species with which I am acquainted, two inches long, and an inch or an inch and a-half broad in the upper part. Peduncles 2—3 flowered, and as well as the pedicels and calyx perfectly glabrous.

Perhaps in this *Drosera*, as well as in that of the preceding plate, (*D. bulbosa*,) the root, in its perfect state, is covered with concentric scales. The dye given out by the tuber is singularly beautiful.

TAB. CCCLXXVII.

Quercus agrifolia.

Foliis subcordato-ovatis remote spinoso-dentatis utrinque glabris perennantibus, fructibus solitariis geminisque axillaribus, cupulæ hemisphæricæ basi attenuatæ squamis adpressis oblongis obtusiusculis glabriusculis, glande ovato-oblonga acuta subconica cupula paullo longiore.

Q. agrifolia. *Neé in Ann. Sc. Natur.* iii. *p.* 271. *Willd. Sp. Pl.* 4. *p.* 431. *Spreng. Syst. Veget.* 3. *p.* 859. *Hook. et Arn. Bot. of Beech. Voy. p.* 391.

Hab. California; *Neé. D. Douglas.*

A very pretty and well-marked species of oak. It was first found by Neé at Monterrey, and it is said also at Nutka.

TAB. CCCLXXVIII.

Gloxinia Sarmentiana. *Gardn. mst.*

Herbacea annua caulescens ramosa glabra, caule gracili, foliis oppositis petiolatis ovatis grosse serratis, pedunculo brevi axillari vel terminali solitario unifloro, calyce puberulo 5-fido.

Gloxinia Sarmentiana. *Gardn. Herb. Brasil, n.* 2226.

Hab. Abundant, but rare in flower, on shady rocks in a ravine called Buráco do Inferne, about a league from Oeiras, the capital of Piauhy, Brazil. *Mr Gardner.*

It is to be hoped Mr Gardner will be able to introduce this beautiful and showy annual alive to our gardens, where it would prove highly ornamental, its flowers being of a rich purple-blue, and very large in proportion to the size of the plant. This was first made known to Mr Gardner by Dr Casimiro José Moraes Sarmento, a young gentleman of Oeiras, to whom he was also deeply indebted for many kind attentions during his stay in that city, and whose name he wishes it to commemorate.

Fig. 1. Calyx and pistil, from which the corolla had fallen :— *magnified.*

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TAB. CCCLXXIX.

Taxodium sempervirens. *Lamb.?*

Foliis sempervirentibus subdistichis erecto-patentibus laxe imbricatis linearibus acutis supra canaliculatis glabris subtus glaucis subpulverulentis marginatis costa prominente, galbulis (?) junioribus squamis ovatis membranaceis fuscis obtectis.

Taxodium sempervirens. *Lamb. Pin. t.* 643? *Hook. et Arn. Bot. of Beech. Voy. p.* 392.

Abies religiosa. *Hook. et Arn. Bot. of Beech. Voy. p.* 160. (*excl. syn. H.B.K., and of Cham. and Schlecht.*)

Hab. California; *Douglas. Beechey.*

I regret that I am not able to give a more complete figure of a *Taxodium*, as it is supposed to be, which Mr Douglas describes as the "great beauty of the Californian vegetation, which gives the mountains a most peculiar, I was going to say, awful appearance,—something which plainly tells that we are not in Europe. I have repeatedly measured specimens of this tree 270 feet long, and 32 feet round, at three feet above the ground. Some few I saw upwards of 300 feet high, but none in which the thickness was greater than those I have instanced."

It does not so well accord with *Taxodium sempervirens* of Lambert, as to induce me to consider it decidedly that plant; but I hope the attention of Californian travellers may in future be directed to it, and that we shall be able, on some other occasion, to represent the flowers and the fruit of this most magnificent denizen of western America.

Fig. 1. Upper, and *f.* 2. Underside of a leaf:—*magnified.*

TAB. CCCLXXX.

Quercus densiflora.

Foliis perennantibus coriaceis petiolatis oblongo-lanceolatis obtusis basi obtusis breviter acuminatis parallele nervosis integerrimis margine revolutis junioribus fulvo-furfuraceo-tomentosis subtus pallidioribus demum glabris, amentis masculis elongatis folia superantibus densifloris valde tomentosis nunc ad basin flores paucos fœmineos instructis, fructibus sessilibus, cupula brevi hemispherica dense squamosa squamis elongato-linearibus laxis sericeis, glande ovato-globosa sericea.

Quercus densiflora. *Hook. et Arn. Bot. of Beech. Voy. Suppl. p.* 391.

Hab. California; *D. Douglas.*

This remarkable plant has very much of the general appearance of a *Castanea;* the fruit, in the only specimen we possess, being situated at the base of a male catkin of the former year, while the numerous male catkins of the present year exhibit no appearance whatever of female flowers. The leaves are from $2\frac{1}{2}$ to 3 inches long, and almost an inch broad.

TAB. CCCLXXXI.

Cestrum vestitum.

Foliis alternis oblongo-ovatis acutis petiolatis supra glabris reticulatis integerrimis subtus petiolis ramulis corymbis floribusque tomento pallide fulvo dense vestitis, cymis compositis terminalibus densifloris, calycibus obconicis dentibus 5 brevibus truncatis, corolla infundibuliformi tubo gracili, filamentis inclusis basi geniculatis ovarioque pubescentibus.

Hab. Near Quito; *Prof. W. Jameson.*

Professor Jameson marks this as a tree: perhaps rather a large shrub. It is remarkable for the dense, pale, tawny tomentum, with which the specimens are everywhere clothed, except the upper part of the leaves.

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Pistil:—*magnified.*

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TAB. CCCLXXXII.

Quercus Douglasii.

This I take to be the young branches with male flowers of the oak described in the next page. The shape of the leaves is the same, but these are in a nascent state, and clothed with a minute cinereous down. The catkins are axillary, drooping, of several rather closely placed flowers, which are sessile on the rachis. Perianth deeply 5-cleft, having ovate, acute, serrated and ciliated segments, with about six stamens. Filaments short. Anthers large, 2 celled.

Fig. 1. Portion of a male catkin with 2 flowers. *f.* 2. Perianth, from which the stamens are removed. *f.* 3. Front view, and *f.* 4, back view of a stamen:—*magnified.*

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TAB. CCCLXXXIII.

Quercus Douglasii.

Foliis membranaceis oblongo-ovalibus basi acutis petiolatis sinuato-pinnatifidis siccitate haud nigrescentibus, supra glabris subtus puberulis, lobis brevibus acutiusculis, petiolis ramulisque junioribus dense fulvo-pubescentibus, fructibus sessilibus solitariis binisve, cupula hemisphærica dense squamosa squamis ovatis convexis in appendicem submembranaceam fulvam appressam linearem obtusam productis pubescentibus, glande ovata cupulam triplo superante obtusa cum umbone conico.

Quercus. Douglasii. *Hook. et Arn. Bot. of Beech. Voy. p.* 391.

Hab. California; *D. Douglas.*

For a figure of the younger state of the plant, see the preceding plate, (Tab. CCCLXXXII.)

Fig. 1. Portion of a cupule. *f.* 2. Inner, and *f.* 3. Outer scale of do :—*magnified.*

TAB. CCCLXXXIV.

Maxillaria curtipes.

Pseudo-bulbo elliptico compresso lævissimo monophyllo, folio lato-lineari-lanceolato acutiusculo enervi basi complicato, scapo radicali pseudo-bulbum æquante squamis fuscis membranaceis vaginato unifloro, sepalis petalisque subconformibus oblongis unicoloribus, labello oblongo obscure trilobo intus nitidissime purpureo-fusco disco tuberculo lato elevato.

Hab. Mexico; *J. Parkinson, Esq.*

Drawn from the living plant, of which the pseudo-bulbs were sent by Mr Parkinson to the Woburn collection. It is a small species, offering little beauty to recommend it for cultivation, but nevertheless deserving of being recorded and faithfully represented. It will rank near *Maxillaria rufescens, Lindl. Bot. Reg. t.* 1848. The pseudo-bulbs are small and singularly smooth on the base of the surface. The leaf somewhat coriaceous. From the base of the bulb there are, one on each side, the rudiments of new plants, clothed like the quarter part of the scape, with brown sheathing scales. Flower rather small, of a yellowish buff colour, destitute of fragrance, the outer or underside of the labellum is obscurely spotted with red; the inside, as well as the front of the column, is deep red-brown and glossy.

Fig. 1. Scape and flower. *f.* 2. Labellum:—*magnified.*

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Jamesonianæ. N. O. Malvaceæ.

TAB. CCCLXXXV.

Sida parnassiæfolia.

Acaulis, radice fusiformi tuberosa, foliis longe petiolatis cordatis obsolete dentatis petiolis ciliatis, scapis longitudine foliorum unifloris, calycibus 5-fidis basi bibracteolatis hirsutis.

Hab. Andes of Quito. On cold and elevated situations on the road from Guamote to Achupallas, at an elevation of about twelve thousand feet above the level of the sea. *Professor W. Jameson.*

This was only observed in places where the turf produced a herbage of very stunted growth. The flower is light purple occasionally white.

Fig. 1. Leaf. *f.* 2. Scape and calyx, with bracteas :—*magnified.*

TAB. CCCLXXXVI.

Polypodium (Eupolyp.) discolor.

Cæspitosum, fronde lanceolata subcoriacea pinnatifida supra viridi glabra subtus pulvereo-albida laciniis oblongis obtusis integerrimis, soris marginalibus uniserialibus.

Hab. British Guiana; *Mr Schomburgk, n.* 1031.

This is very different from any *Polypodium* with which I am acquainted, and remarkable for the underside being covered with a white pulverulent substance, which contrasts curiously with the dark and naked upper surface. The costa or midrib is slightly prominent on both sides; but the venation is altogether internal, and is quite obsolete on the surface. Sori dark brown, orbicular.

Fig. 1. Portion of a frond, seen from beneath, with sori:—*magnified.*

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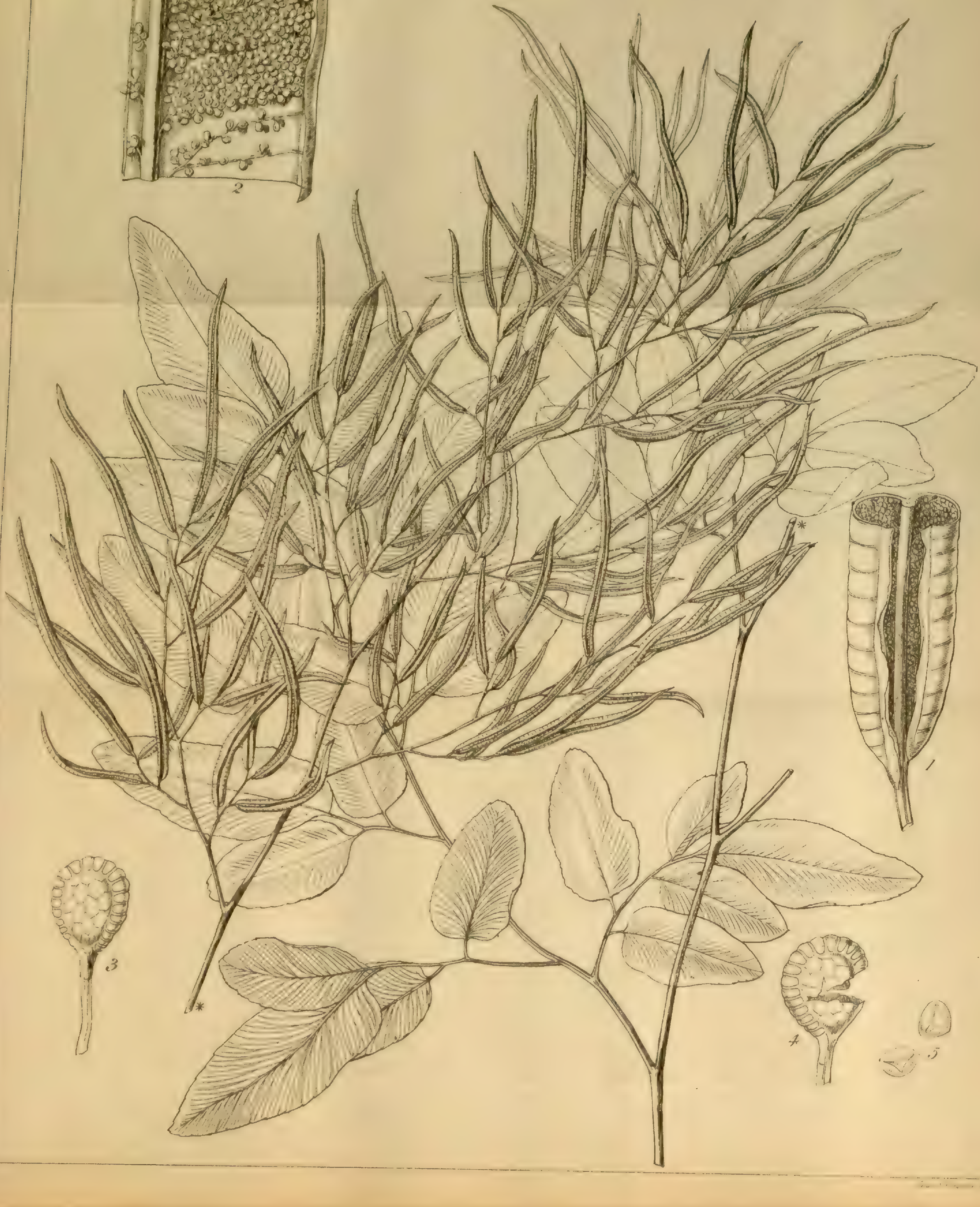

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TABS. CCCLXXXVII. CCCLXXXVIII.

Allosorus Karwinskii.

Fronde supradecomposita, pinnis alternis petiolulatis sterilibus ovatis ovato-oblongisve obtusiusculis serrulatis basi truncatis terminali subinæquali, fertilibus copiose paniculatis in apice frondis linearibus acuminatis.

Allosorus Karwinskii. *Kunze in Linnæa, v.* 13. *p.* 138. *Benth. Pl. Hartweg. p.* 54.

Ceratodactylis osmundioides. *J. Smith in Bauer et Hook. Gen. Fil. t.* 36.

Hab. Mexico, Oaxaca; *Karwinski.* Barranca del Encarnacion, near Zimapan; *Hartweg.*

One of the most striking of Ferns that has recently been made known. Our specimens are from Mr Hartweg, of whose distributed collections it is No. 411. We gave the following brief notice of it in Mr Bentham's invaluable notes on Hartweg's plants:—" Mr Lambert is probably the first botanist to whom this very remarkable plant was known. Mr John Smith considers it the type of a new genus, and has described it as such in the *Genera Filicum;* but I fear it cannot be separated from that division of the old genus *Allosorus,* to which Presl has referred it, and it does seem to connect *Cryptogramma,* Br. with *Allosorus,* much more so than I had any idea of till I saw this noble species. As in *Osmunda,* the upper part of the frond is converted, as it were, into a panicle of fructification."

Fig. 1. Portion of a fertile pinnule. *f.* 2. Small portion of do., the margin laid open to show the sori on the nerves. *f.* 3. 4. Sporangia. *f.* 5. Sporules:—*magnified.*

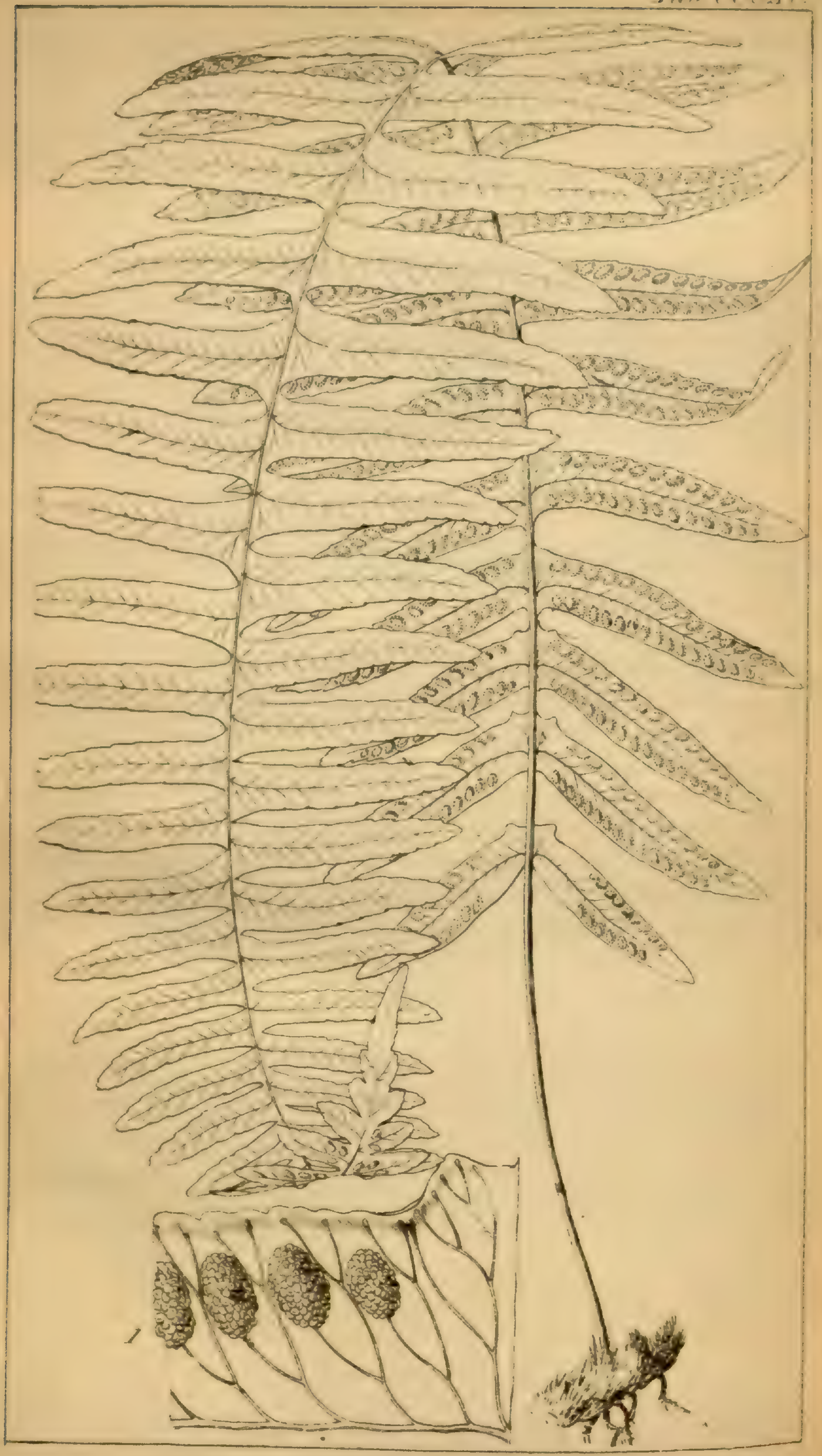
TAB. CCCLXXXIX.

Drosera stolonifera. *Endl.*

Radice tuberosa, foliis radicalibus spathulatis rosulatis, stolonibus e basi procumbente adscendentibus, foliis suborbiculatis petiolatis quaternim verticillatis scapum racemoso-paniculatum æquantibus, calycibus glabris. *Endlich. En. Pl. Nov. Holl. p.* 5.

Hab. Swan River; *Hugel. Mr James Drummond.*

Endlicher appears only to have seen this curious *Drosera* destitute of the tuber at the base of the root. This is as large as a good-sized nut, and stains the paper of the herbarium with a most beautiful purple dye. Professor Lindley observes of the Droseraceous plants of the Swan River settlement, that "they appear likely to be in some cases of commercial value as dyers' plants. Every part of *D. gigantea* stains paper of a brilliant deep purple, and when fragments are treated with ammonia they yield a clear yellow. The bulbs of *D. erythrorhiza* and *stolonifera* possess the same property; in these there is a deep scarlet powder secreted by the scales of the bulbs, which is instantly dissolved in ammonia, forming at first an orange-coloured fluid of great richness, but it soon changes to the rich purple above mentioned, which is more like the colour obtained from Archil than any thing else to which I can compare it. Possibly these bulbs are what Dr Milligan speaks of under the name of 'boom,' which he says are scarlet roots, not unlike in shape or size to tulip roots. 'They roast them in the ashes, and then pound them between two flat stones, rubbing the latter with a ball of earth to prevent the root adhering to it: when thus prepared they are mucilaginous, and of a glossy black colour; they may be considered the bread of the natives who live near the coast.' If so, they may be easily enough obtained for the purpose of exportation, and may assist the poorer settlers in turning to account the produce of their land."



TAB. CCCXC.

POLYPODIUM (EUPOLYP.) HARTWEGIANUM.

Fronde tenerrima ubique stipiteque pubescentibus profunde pinnatifida (inferne pinnata,) pinnis oppositis laciniis subalternis approximatis horizontalibus e basi lata decurrente lanceolatis acutiusculis subangulato-dentatis, pinnis deflexis, infimis (duabus paribus) basi superiore auriculatis, auriculis transversim truncatis, soris (in omnibus pinnis laciniisque) uniserialibus ovalibus oblique transversis.

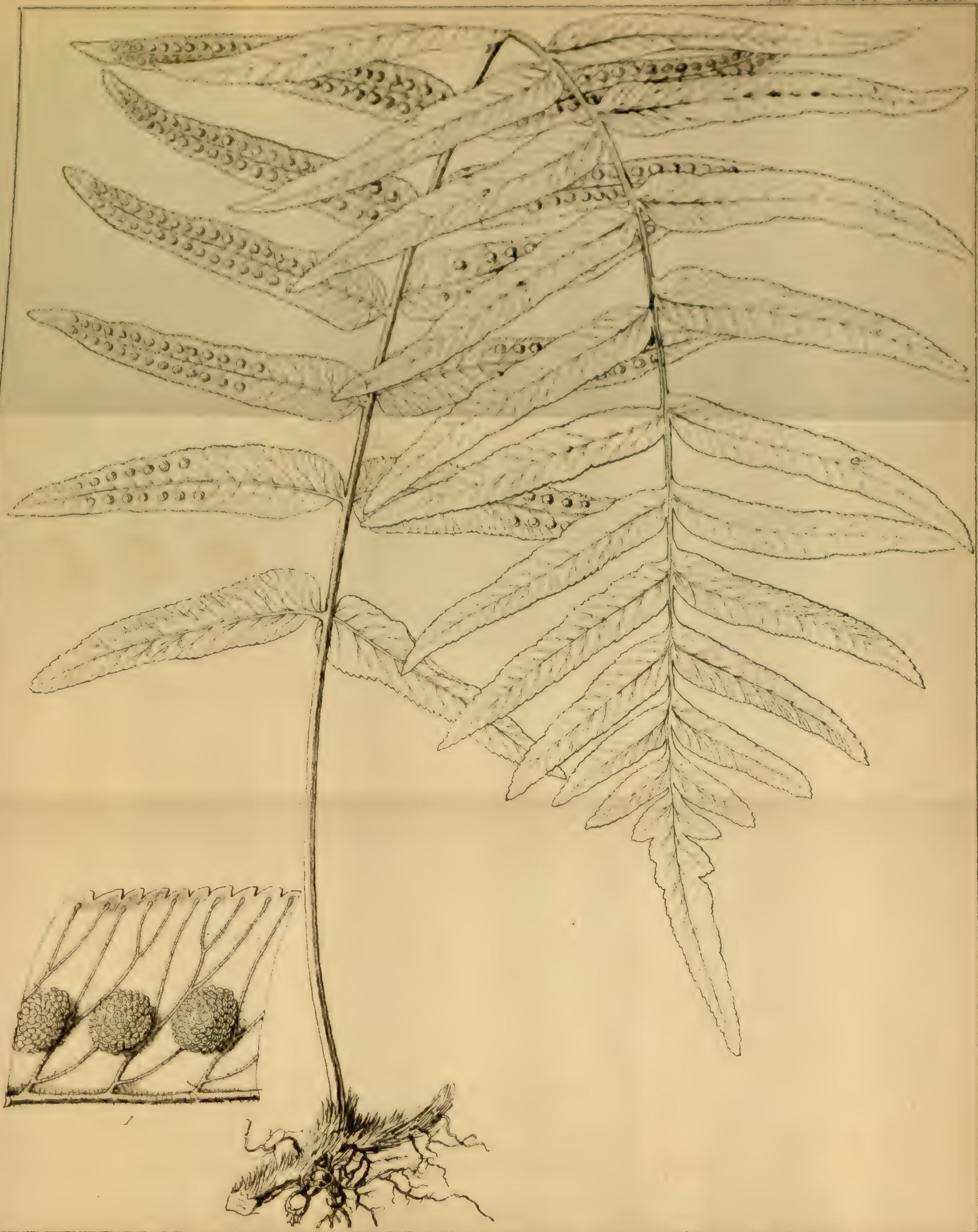
Polypodium (Eupolyp.) Hartwegianum. *Hook. in Benth. Plant. Hartweg. p.* 55.

HAB. Mexico, on the mountain Sumata, at an elevation of 9500 feet; *Hartweg.* (*n.* 415.)

Caudex repens, squamosus. Stipes 3-pollicaris, gracilis, fusco-viridis, hinc canaliculatus. Frons pedalis, tenera, flaccida, laciniis 2—2½ uncias longis. Venæ bis furcatæ, nigricantes, venula infima superiore apice sorifera, reliquæ ante marginem evanescentes, apicibus clavatis.

Fig. 1. Portion of a fertile pinna, with sori :—*magnified.*

Tab. cxcvii. cxcviii.



TABS. CCCXCI. CCCXCII.

Polypodium (Eupolyp.) subpetiolatum.

Fronde ovato-lanceolata pinnata, rachibus costa venisque subtus pubescenti-hirsutis, pinnis alternis remotis lanceolato-acuminatis undique serrulatis subcoriaceo-membranaceis, inferioribus basi oblique truncatis brevissime petiolatis petiolis superne alatis, superioribus basi oblique cuneatis sessilibus, supremis basi decurrentibus adnatis, soris rotundatis uniserialibus.

Polypodium (Eupolyp.) subpetiolatum. *Hook. in Benth. Pl. Hartweg. p.* 54.

Hab. Regla, Mexico; *Hartweg.*

Caudex repens, crassitie pennæ anserinæ, squamosus. Stipes 4—5-pollicaris. Frons pedalis. Venæ obliquæ, 2—3—4-furcatæ, venula infima superne sorifera, reliquæ fere ad marginem attingentes, apicibus clavatis.

Fig. 1. Portion of a fertile pinna with sori:—*magnified.*

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TAB. CCCXCIII.

Gaultheria tomentosa.

Ramulis fuscescenti-tomentosis teretibus, foliis brevi-petiolatis lanceolatis coriaceis pungenti-acutis supra nudis reticulatis subtus ferrugineo-tomentosis, racemis in apice ramorum axillaribus et terminalibus, bracteis ovato-oblongis concavis corollis calycibusque extus tomentosis.

G. tomentosa. *H.B.K. Nov. Gen. Am.* 3. *p.* 287. *f.* 262. *De Cand. Prodr. v.* 7. *p.* 597.

Hab. Paramo de Saraguru in the Andes of Quito, between Loxa and Nabon, at an elevation of 1400 toises; *Humboldt.* Pillzhum; *Prof. W. Jameson.*

This singular species will rank next to *G. lanigera; Hook. Ic. Pl. f.* 66; like it, having the young branches, racemes, flowers, and underside of the foliage, densely clothed with a rusty-coloured tomentum.

Fig. 1. Flower. *f.* 2. Stamen. *f.* 3. Pistil:—*magnified.*

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TAB. CCCXCIV.

Antrophyum ensiforme.

Fronde e lata basi ensiformi-lanceolata subfalcata tenui submembranacea leniter falcata obtusiuscula obscure costata enervi, soris uniserialibus inter costam et marginem elongatis interruptis flexuosis extus (marginem versus) ramosis.

Antrophyum ensiforme. *Hook. in Benth. Plant. Hartw. p.* 73. *n.* 522.

Hab. On the summit of the mountain Totontapaque, altit. 10,000 ped.; *Hartweg.*

A very singular and well-marked species of *Antrophyum*, as I am disposed to consider it, quite distinct from any hitherto described. The root is tufted, consisting of numerous downy fibres. Fronds 3—4 from one point, erect, a span or more high, quite sessile, rather broad at the base, lanceolate, thin and almost membranous, especially at the margin, where it is somewhat transparent, slightly falcate, obtuse at the apex. A rather obscure costa runs through the centre, gradually becoming fainter upwards; but there are no visible reticulations or veins, even when the plant is held up between the eye and the light. Sori consisting of elongated, interrupted, flexuose lines, between the costa and margin, and nearly parallel with them: these lines send out oblique branches on the side next the margin only, and they are sunk into the substance of the frond.

Fig. 1. Portion of the fertile frond with sori. *f.* 2. Capsule:—*magnified.*

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TABS. CCCXCV. CCCXCVI.

Aspidium (Nephrolepis) davallioides.

Fronde pinnata coriaceo-membranacea glabra, pinnis sessilibus inferioribus sterilibus lanceolatis acuminatis basi *oblique* cuneatis obtuse serratis reliquis fertilibus elongatis angustis pinnatifidis laciniis obtusis apice 1-sorophoris, rachi minute paleacea subnuda.

Aspidium davallioides. *Swartz, Syn. Fil. p.* 48. *et* 247; *Willd. Sp. Pl.* 5. *p.* 242; *Spreng. Syst. Veget.* 4. *p.* 102; *Blume, Enum. Pl. Jav. p.* 148.

Ophioglossum acuminatum. "*Houtt. Linn. Pft. Syst.* 10. *p.* 53. *t.* 94. *f.* 3."

Hab. Java; *Thunberg, Blume, Chas. Millett, Esq.*

A very well marked *Aspidium*, of the *Nephrolepis* group, or genus in the opinion of Presl and some authors. On the authority of Thunberg, Swartz gives it as an inhabitant of India, as well as of Java; but I have never seen specimens save from this latter country, and they were, with many other fine ferns, kindly given to me by Mr Millett. Swartz justly says of it, "Filix omnium Aspidiorum maxime singularis, cujus sori ad apicem laciniarum frondis rotundatum, concaviusculum, indusio quasi duplici tecti, *Davalliæ* et *Dicksoniæ* speciem referunt."

Fig. 1. Lacinia of a fertile pinna with sorus, seen from the underside. *f.* 2. The same seen from the upper side:—*magnified.*

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TAB. CCCXCVII.

Bruguieria Rheedei.

Gen. Char. Bruguieria, *L'Her.*—*Calyx* 8—14-fidus; laciniæ tubum turbinatum subæquantes. *Petala* oblonga, bifida, basi circa stamina duo anteposita arcte conduplicata vel convoluta. *Stamina* petalorum numero duplo, biserialia, e petalis tandem elastice dissilientia; filamenta petalis subdimidio breviora, inæqualia, interioribus brevioribus: antheræ lineares vel oblongæ, acutæ, basi affixæ. *Ovarium* adhærens, 2—3—4-loculare, loculis 2-ovulatis. *Stylus* filiformis, staminum longitudine: stigma 2—3—4-dentatum. *Fructus* turbinatus, tubum calycis haud superans ac ejus laciniis apice coronatus.—Pedunculi 1—3-*vel pluriflori.* Calyx *basi nudus.* Alabastra *fusiformia vel ovoidea.*

Bruguieria *Rheedei;* foliis ovali-oblongis utrinque acuminatis, pedunculis 1-floris cernuis folio brevioribus, calyce 10—14-(sæpius 12-)-fido laciniis lineari-acuminatis apicem versus triquetris demum erectis vel subincurvis, petalis ima basi villosulis alioquin glaberrimis laciniis acutis apice bisetis cum seta quinta in fissura antheris linearibus, ovario triloculari.—*Arn.*

Bruguieria Rheedei. *Blume? En. Fl. Jav.* 1. *p.* 92. *Arnott in Ann. of Nat. History.* 1. *p.* 367.

B. gymnorrhiza. *Lam. Ill. t.* 397. *f. a, b, c. Wight et Arnott, Prod. Fl. Penin. Ind. Or.* 1. *p.* 311 (*partim.*)

Rhizophora gymnorrhiza. *Linn. Sp. p.* 634. (*partim*). *Roxb. Fl. Ind.* 2. *p.* 460. *Rheed. Hort. Mal.* 6. *t.* 31. *et* 32.

Hab. Malabar and Bengal.

This, as Dr Arnott observes, may not be the species intended by Blume, who cites Rumph. *Amb. t.* 69, or *Rhizophora Palun* of De Candolle, as that figure represents the peduncles usually 2-flowered, besides other discrepancies. The name *Rheedei* must, however, be applied to Rheede's plant, which is the one now figured.

Fig. 1. Flower cut through vertically. *f.* 2. Petal with two stamens:—*magnified. f.* 3. Fruit with the germinating tigellus:—*nat. size.*

1

TAB. CCCXCVIII.

Bruguieria Malabarica.

Foliis elliptico-oblongis utrinque acuminatis, pedunculis petiolum æquantibus apice trifloris, floribus arcte sessilibus, calycis laciniis 8 oblongo-linearibus planiusculis obtusiusculis demum patentibus, petalis ad margines parce villosulis laciniis apice 3—4-setis cum seta unica in fissura, antheris lineari-oblongis, ovario biloculari, tigello cylindrico demum supra medium attenuato obtuso.—*Arn.*

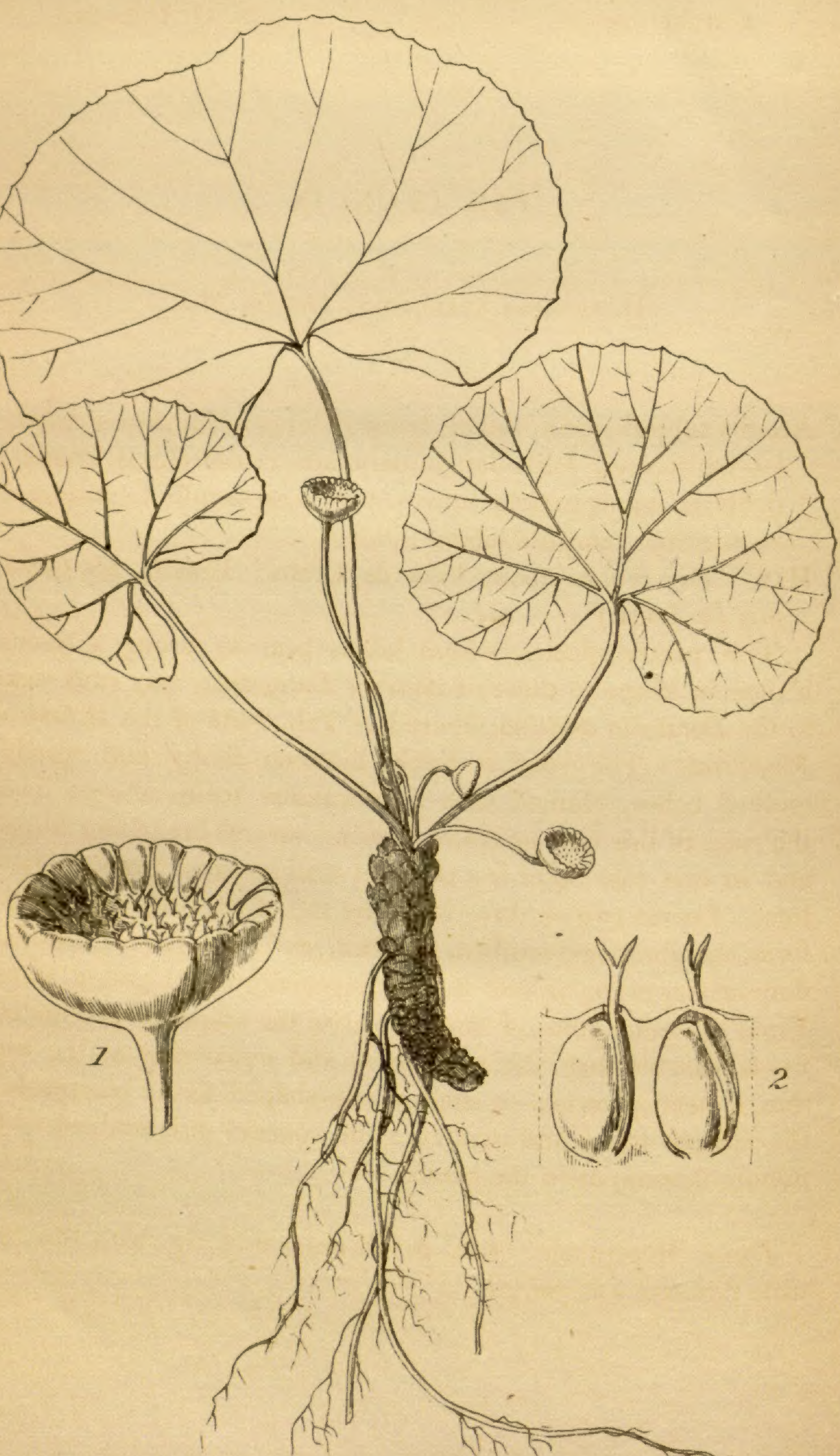
Bruguieria Malabarica. *Arn. in Ann. of Natural History*, 1. *p.* 369. *Wight. Cat. n.* 2452.

Rhizophora cylindrica. *Linn. Sp. p.* 635 (*partim.*) *Rheed. Hort. Mal.* 6. *t.* 33.

Hab. Malabar.

Dr Arnott observes that both this and *B. caryophylloides* of Blume "have the germinating tigellus tapering slightly, and obscurely angled towards the point. I as yet know of no character to separate the two, except the narrower and more pointed leaves, and longer peduncles of the Malabar plant. I have never, in the present one, observed more or less than three flowers on each peduncle, but the two lateral ones often drop off before expansion." In our figure one of these lateral flowers has very constantly fallen off, hence the peduncles are represented as if two-flowered.

Fig. 1. Fruit with the germinating tigellus:—*nat. size.*



1

2

TAB. CCCXCIX.

Dorstenia asaroides. *Gardn. Mss.*

Acaulis subpubescens, radicis trunco elongato squamoso radicu-las emittentes, foliis longe petiolatis reniformibus crenato-dentatis, scapis petiolo brevioribus, receptaculis hemisphæricis concavis margine lobato inflexo.

Hab. Dry woods about Villa de Crato. Brazil; *Mr Gardner*, (*n.* 2001.)

This pretty species, whose leaves bear so strong a resemblance in shape to those of *Asarum Europæum*, may rank next to the *Dorstenia tubicina*, figured at Tab. 2804 of the *Botanical Magazine*. The root is thick, between fleshy and woody, toothed below, clothed with membranous scales above: from the sides of this root or trunk descend several branching fibres, and in one case there is a pendent stalked tuber from the bottom. Leaves two or three from the top of the root, quite reniform, membranous, toothed, beneath, as is the petiole and inflorescence, more or less downy, especially in the young state. From the same point of the root arise the scapes or peduncles, 2—4, shorter than the peduncles, and expanding at the top into a hemisphærical or shallow cup-shaped fleshy receptacle: the margin lobed and involute: the concave disk studded with minute flowers, as in the genus.

Fig. 1. Receptacle. *f.* 2. Small portion of do., with two female flowers:—*magnified.*

1

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3

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6

TAB. CD.

Aulaya Capensis. *Harv.*

Gen. Char. Aulaya. *Harv.*—*Calyx* basi bibracteatus, campanulatus, semiquinquefidus. *Corolla* tubulosa, clavata, leviter curvata; limbo subæquali quinquefido; segmentis brevibus latis (sub anthesin) imbricatis. *Stamina* 4, didynama, basin versus tubi inserta. *Filamenta* glabra, vel glandulosa. *Antheræ* didymæ, loculo unico perfecto, versus apicem dehiscente, marginibus conniventibus; altero subulato vacuo. *Ovarium* ovatum, biloculare; *placenta* in singulo loculo unica, centralis, reniformis vel lunata; *stylus* filiformis: *stigma* deflexum lineare vel subclavatum. *Capsula — ? Harvey.*

Aulaya *Capensis;* floribus racemosis, corollæ limbo plano margine crenulato. *Harv. Gen. of S. African Pl. p.* 250.

Orobanche Capensis. *Thunb. Fl. Cap. p.* 453.

Hab. Summit of Table Mountain, Cape of Good Hope, (Thunberg); near the spring there which flows into Camps Bay; *Hon. W. H. Harvey.*

There are two species, and amongst the most splendidly coloured plants of the Flora of the Cape Colony, which Mr Harvey refers to his genus *Aulaya*. The one is the *Orobanche squamosa*, (See our Tab. CDI.) of Thunberg; the other the *O. Capensis* of the same author. The latter is the species here figured, and the whole is "of an intense scarlet, relieved with shades of a rich orange." Both are parasitical, leafless, scaly and tuberous-rooted, nearly allied to our *Harveya*. This genus, on account of the structure, Mr Harvey is disposed to refer to *Schrophularineæ*, rather than to *Orobancheæ*, if the latter be really a distinct family from the former.—Our drawing was made by Mr Harvey from recent specimens at the Cape.

Fig. 1. Calyx and bracteas. *f.* 2. Corolla (*nat. size.*) *f.* 3. Anther, not yet burst. *f.* 4. Stamen; the anther burst. *f.* 5. Pistil. *f.* 6. Transverse section of the ovary:—all but *f.* 2, more or less *magnified.*